

United States Department of the Interior  
National Park Service

**SENT TO D.C.**

**NATIONAL REGISTER OF HISTORIC PLACES  
REGISTRATION FORM**

6-29-05

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

**1. Name of Property**

historic name **Illinois Institute of Technology Academic Campus**

other names/site number **Armour Institute of Technology**

**2. Location**

street & number **Roughly bounded by 31<sup>st</sup> Street, State Street, 35<sup>th</sup> Street  
and the Dan Ryan Expressway** \_\_\_\_\_ Not for publication

city or town **Chicago** \_\_\_\_\_ vicinity

state **Illinois** code **IL** county **Cook** code **031** zip code

**3. State/Federal Agency Certification**

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this  nomination \_\_\_\_\_ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property  meets \_\_\_\_\_ does not meet the National Register Criteria. I recommend that this property be considered significant  nationally \_\_\_\_\_ statewide \_\_\_\_\_ locally. ( \_\_\_\_\_ See continuation sheet for additional comments.)

*William L. Whitford*  
Signature of certifying official

6/27/05  
Date

**Illinois Historic Preservation Agency**

State or Federal agency and bureau

In my opinion, the property \_\_\_\_\_ meets \_\_\_\_\_ does not meet the National Register criteria. ( \_\_\_\_\_ See continuation sheet for additional comments.)

\_\_\_\_\_  
Signature of commenting or other official Date

\_\_\_\_\_  
State or Federal agency and bureau

\_\_\_\_\_  
American Indian Tribe

Illinois Institute of Technology  
Name of Property

Cook County, Illinois  
County and State

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#### 4. National Park Service Certification

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I. hereby certify that this property is:	Signature of the Keeper	Date of Action
<input type="checkbox"/> entered in the National Register <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined eligible for the National Register <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined not eligible for the National Register	_____	_____
<input type="checkbox"/> removed from the National Register	_____	_____
<input type="checkbox"/> other (explain):	_____	_____

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#### 5. Classification

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Ownership of Property  
(Check as many boxes as apply)

- private  
 public-local  
 public-State  
 public-Federal

Category of Property  
(Check only one box)

- building(s)  
 district  
 site  
 structure  
 object

Number of Resources within Property  
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
<u>  26  </u>	<u>  0  </u>	buildings
<u>  0  </u>	<u>  0  </u>	sites
<u>  0  </u>	<u>  0  </u>	structures
<u>  0  </u>	<u>  0  </u>	objects
<u>  26  </u>	<u>  0  </u>	Total

Number of contributing resources previously listed in the National Register **S. R. Crown Hall (NHL)**

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.)

N/A

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**6. Function or Use**

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Historic Functions (Enter categories from instructions)

**Education/school**

Current Functions (Enter categories from instructions)

**Education/school**

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**7. Description**

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Architectural Classification  
(Enter categories from instructions)

**Other: Miesian  
Richardsonian Romanesque**

Materials (Enter categories from instructions)

Foundation **concrete**

Roof **Built-up roofing**

Walls **sandstone, brick, steel, glass**

other **travertine (stairs at Crown Hall & Hermann Hall)**

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

**See Continuation Sheets**

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**8. Statement of Significance**

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Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- X** **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- X** **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or a grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- X** **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)

**Architecture**

**Education**

Period of Significance **1893-1971** Significant Dates **1893, 1901, 1943**

Significant Person (Complete if Criterion B is marked above) **N/A**

Cultural Affiliation **N/A**

Architect/Builder **Mies van der Rohe, Ludwig, architect**  
**Patten & Fisher, architects**  
**Schmidt, Garden & Erikson, architects**  
**Skidmore, Owings & Merrill, architects**

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.) **See Continuation Sheet**

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### 9. Major Bibliographical References

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(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)

- preliminary determination of individual listing (36 CFR 67) has been requested.
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # \_\_\_\_\_
- recorded by Historic American Engineering Record # \_\_\_\_\_

Primary Location of Additional Data

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository **Illinois Institute of Technology, Commission on Chicago Landmarks**

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### 10. Geographical Data

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Acreage of Property **approximately 60 acres**

UTM References (Place additional UTM references on a continuation sheet)

	Zone Easting	Northing	Zone Easting	Northing			
1	16	447712	4631793	3	16	447948	4631009
2	16	447935	4631884	4	16	447745	4631014

See continuation sheet.

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

**See Continuation Sheet**

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

**See Continuation Sheet**

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**11. Form Prepared By**

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name/title Mark Kasprzyk and Douglas Gilbert  
organization McClier / Austin AECOM date April 2005  
street & number 303 East Wacker telephone 312.373.7700  
city or town Chicago state Illinois zip code 60601

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**Additional Documentation**

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Submit the following items with the completed form:  
Continuation Sheets

Maps

- A USGS map (7.5 or 15 minute series) indicating the property's location.
- A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

- Representative black and white photographs of the property.

Additional items (Check with the SHPO or FPO for any additional items)

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**Property Owner**

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(Complete this item at the request of the SHPO or FPO.)

name Illinois Institute of Technology  
contact: David Baker  
Vice President of External Affairs  
street & number 10 West 33<sup>rd</sup> Street, Room 223 telephone 312-567-3561  
city or town Chicago state Illinois zip code 60616

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Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.). Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

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**Illinois Institute of Technology, Cook County, Illinois**

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## DESCRIPTION

The Illinois Institute of Technology (IIT) Academic Campus was planned by Mies van der Rohe and is located in the Douglas neighborhood on Chicago's South Side. Although originally starting with only two 19<sup>th</sup> century buildings along 33<sup>rd</sup> Street, the academic campus has currently grown to approximately 60 acres with a total of twenty-six buildings. The academic campus boundaries are just past 31st Street on the north (to include only the Harold Leonard Stuart Building), State Street on the east, the raised Rock Island District railroad tracks and the Dan Ryan Expressway on the west and 35<sup>th</sup> Street on the south (site plan). Dearborn Street was to remain as a through street in Mies' final master plan but was eventually closed between 34<sup>th</sup> and 27<sup>th</sup> Streets. 33<sup>rd</sup> Street serves as the main east-west artery for the campus as well as being the central axis between the north and south sides of the campus. State Street is the north-south artery and essentially divides the educational and research buildings to the west from the residential and recreational buildings to the east. The division between academic and residential campuses is both physical and visual. The CTA Elevated Green Line runs just east of State Street and the area underneath is mostly open parking lots. Two modern structures have been built along State Street that also block direct access and views between campuses. Furthermore, the residential campus was never planned by Mies and was developed haphazardly by various architects over the years. Consequently, this nomination addresses the academic portion of the campus west of State Street, the only portion planned by Mies.

The Douglas neighborhood was developed starting in the 1850s, initially as a wealthy residential neighborhood located along Lake Michigan. Following the Chicago Fire, the area became an economically and racially diverse neighborhood consisting of the wealthy elite to the east and north, and various ethnic working class groups to the west and south. The working class neighborhoods were hemmed in between the posh residential neighborhood to the east and the Rock Island and Pacific Railway and industry and stock yards to the west, where many of the residents worked (Figure 1). Philip Armour, the great industrialist and philanthropist, became heavily involved with improving the district's poorer residents and through his efforts established the Armour Mission, Armour Flats and Armour Institute of Technology (AIT) (Figure 2). Armour Mission provided a multitude of functions, ranging from religious to recreational. The Armour Flats, an apartment complex for the working class, was an early effort to improve living conditions in tenements. AIT was likewise established to provide the underprivileged with a means of improving their lot through education.

The primarily white population was replaced during World War I and throughout the 1920s by blacks migrating from the South looking for work. Finding other areas of the city inaccessible, they settled in the area and established a vibrant African-American community, later referred to as Bronzeville. Bronzeville, though still largely working class, thrived economically, politically and socially as the center of the African-American community in Chicago in the 1920s. Black-owned businesses made up several commercial districts and jazz clubs along State Street, known as "the Stroll," hosted such legends as King Oliver, Louis Armstrong and Jelly Roll Morton.<sup>1</sup>

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<sup>1</sup> Achilles, Rolf and Charlotte Myhrum. *Guide to the Campus of the Illinois Institute of Technology* (Chicago: Mies Centennial Project of the Illinois Institute of Technology, 1986) 4.

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There are few physical remains of the working class community that inhabited the area around the present day academic campus. The Depression devastated Bronzeville economically, and the area declined socially after World War II as middle and high income blacks found housing elsewhere. Overcrowding became severe in the 1930s and throughout World War II as more blacks migrated to Chicago for work. Absentee landlords allowed buildings to deteriorate and living conditions followed suit. These conditions were ripe for IIT to propose the strategy of purchasing and subsequently demolishing the existing buildings in an attempt to gain land for future campus expansion as well as creating a buffer zone around the campus. The construction of public housing projects, such as Stateway Gardens and the Robert Taylor Homes just south of IIT, also destroyed much of the neighborhood around the campus. The demolition started shortly after World War II and continued throughout the 1960s. The only campus buildings not demolished from the period -- Main Building (Figures 3 & 4), Machinery Hall (Figures 5 & 6), and the Maintenance Garage (Figure 7) -- are clustered along 33<sup>rd</sup> Street and were built for AIT.

Despite the existing urban fabric at the time, when Mies was given the task of planning the new campus he could conceive of it as a blank canvas. Mies laid out the IIT campus on a twenty-four foot horizontal and twelve foot vertical modular grid which established the framework for the majority of building sizes, placement and open spaces at the campus (Figure 8). The final master plan called for a symmetrical arrangement of buildings and open spaces around 33<sup>rd</sup> Street. Based on Mies' 1940 drawing, the majority of buildings are concentrated to the south of 32<sup>nd</sup> Street with only a few buildings and athletic field to the north. The use of a grid and the overall symmetry would seem to lead to a static environment, but it is far from stagnant. Individual buildings are related asymmetrically to each other rather than symmetrically, creating a free flowing dynamic environment where buildings slide past each other and open spaces fuse together (Figure 9).

Although Mies created a master plan for the Academic Campus, he was not able to see it through to completion. Mies resigned from the directorship of the Architecture Department in 1958 and subsequently did not retain the role of campus architect. Skidmore, Owings and Merrill became the unofficial campus architects for the school while Schmidt, Garden and Erikson (SGE) were called upon to design the research buildings for IIT Research Institute (IITRI). Despite the different architects, the campus was completed close to what Mies had planned in his 1940 drawings, although some buildings appeared to have been slightly shifted in placement and size (site plan).

### **Campus Architecture**

The present day campus reflects Mies' design and planning principles, many of which he developed or perfected while working on the IIT campus and buildings. There are a total of twenty-six buildings: three built before Mies, fourteen by Mies, and nine post-Mies buildings. The oldest buildings on campus are the Main Building (1891-93), Machinery Hall (1901) and the Maintenance Garage (1901) (Figures 3-7). All three of the buildings were designed by the architectural firm Patton and Fisher and are clustered around 33<sup>rd</sup> Street and Federal Street. Main Building and Machinery Hall are distinctive for their Richardsonian Romanesque style and are Chicago Landmarks. The Maintenance Garage is more utilitarian in design with only minimal ornamentation at the parapet level.



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The vast majority of buildings on campus were designed and built after 1940. Mies was by far the greatest influence for the campus, having developed the plan and designing a total of fourteen buildings. Mies' buildings share a similar vocabulary, that reflect his interpretation of the International Style: rectangular forms, only a few stories high, flat roofs and a limited exterior palate consisting of painted black steel, glass and buff-colored brick. As a means of expressing the building's purity, or essence, Mies highlighted the building's structural system. The black painted steel was accentuated by the buff-colored brick in-fill, clearly marking the structural bay system. Wishnick Hall (1945-46), Perlestein Hall (1945-46), and Alumni Memorial Hall (1945-46) are three notable examples of Mies' standard academic building design (Figures 10-12). This vocabulary and structural expression was continued in his non-classroom buildings, although often in a simplified version, such as at the Boiler and Steam Generating Plant (1945-50) (Figure 13). In Mies' research buildings, such as North Building, he used reinforced concrete instead of painted steel and minimized the amount of glazing to ribbon windows at the top of each structural bay (Figure 14). Mies' one building at the academic campus which truly broke from his standard campus vocabulary was S. R. Crown Hall (NHL) (Figure 15). Crown Hall deviates slightly from the grid and consists solely of a steel and glass enclosure with large roof trusses that completely span the building, allowing an open, flexible interior.

Post-Mies architecture at IIT typically followed Mies' vocabulary and for the most part, his campus plan. SOM designed five buildings on campus, two by Walter Netsch and three by Myron Goldsmith. Examples include Netsch's Paul V. Galvin Library (1962) and Goldsmith's Engineering I Building (1966) (Figures 16 & 17). Both architects designed in character with Mies but Goldsmith, who was a former student and employee of Mies, remained truer to Miesian principles. SOM's reputation and role as campus architect enabled them to build the more prominent buildings on campus. The buildings at the southern fringe of the campus for the Armour Research Foundation/IIT Research Institute (ARF/IITRI) and Institute of Gas Technology (IGT) were designed by the firm Schmidt, Garden and Erikson. SGE designed five buildings on campus for IITRI, such as the Chemistry Research Building (1959), which closely resembled Mies' simplified design for the North Building with a reinforced concrete structure, buff brick infill and ribbon windows within each bay (Figures 14 & 18).

### Detailed Architectural Description<sup>2</sup>

#### A. PRE-MIES BUILDINGS

1. **MAIN BUILDING – 3300 South Federal Street (Chicago Landmark)** *Contributing*  
*Architect: Patten & Fischer, 1891-93*

The Main Building is a Chicago Landmark and the oldest building on campus (Figures 3 & 4). It was first built to house AIT's principal classrooms. It is five stories high, rectangular in plan and is symmetrical in form with two projecting wings. The building fronts an open lawn to the east with railroad tracks behind. The building consists of dark red sandstone at the basement and

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<sup>2</sup> The majority of information on the campus buildings came from Rolf Achilles and Charlotte Myhrum's *Guide to the Campus of the Illinois Institute of Technology* (Chicago: Mies Centennial Project of the Illinois Institute of Technology, 1986).

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first floor level with smooth red brick at the remaining floors. The building's Romanesque Revival style is evident in the use of the round-arched door and window openings, use of roughly-finished sandstone, and in the ornamentation. Both the north and south elevations are similar in design. The front, east elevation is likewise similar to the west elevation except for an increased amount of fenestration in the central bay to light the main interior staircase. The majority of the windows have been replaced over time. Tall hipped roofs with central gables top each of the three sections. The truncated hipped roof and gable over the southern section were originally identical to that over the northern but have since been reduced in height due to a fire in 1950.

A two-story wing was added to the south of Main Building around 1900. The addition was built to house the campus' first central heating plant and once contained tall smokestacks and a hip-roofed setback section that rose an additional two floors, all of which have been removed. The wing is similar in its Romanesque Revival style and is covered entirely in rough-cut sandstone. Entrance to the wing was originally located within round-arched openings along the east elevation. Small square window openings arranged in groups of eight lie above the round-arched openings. All of the windows have been replaced over time.

The Main Building retains very good physical integrity, although the south wing is in poor repair.

2. *MACHINERY HALL – 100 West 33<sup>rd</sup> Street (Chicago Landmark)* *Contributing*  
*Architect: Patten & Fischer, 1901*

Machinery Hall is a Chicago Landmark and the second oldest building on campus (Figures 5 & 6). It was built directly across 33<sup>rd</sup> Street from Main Building and originally housed classrooms and laboratories. It is rectangular in plan, four stories high, symmetrical and entered through its south elevation. Similar to Main Building, it is in the Romanesque Revival style, although simplified. The basement and first floor of the east, south and west facades are clad in red sandstone while the remaining floors, as well as the entire north elevation, are covered in red brick. The heavy masonry walls are punctuated by round-arched and square door and window openings. Most of the windows have been replaced over time. Pairs of square fourth floor windows are separated by classically-styled terra-cotta pilasters with Ionic capitals. The parapet is ornamented by brick corbelling and a small, recessed penthouse sits on the building's flat roof. In a similar fashion to the principal building, the penthouse is clad in brick and contains round-arched windows and a simple cornice.

Machinery Hall maintains very good physical integrity.

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3. *MAINTENANCE GARAGE – 3240 South Federal Street* *Contributing*  
*Formerly: Armour Institute of Technology Laboratory*  
*Architect: Patten & Fischer, 1901*

The Maintenance Garage was built to the north of Machinery Hall and was used to house the AIT engineering laboratory (Figure 7). The building is one story in height, rectangular in plan and clad on its front, east elevation, in red brick while the other elevations are of common brick. The ground floor of the front facade is punctuated by a central entranceway, two flanking windows and another door opening at either end. Large keystones mark the flat arches of the two door and window openings. There are smaller rectangular openings above the large ground floor windows with a group of four raised brick panels above the two end door openings. A terra cotta sign above the large central entrance displays the buildings original name. The majority of the ornamentation occurs at the parapet level and consists of a simplified cornice and decorative brackets at either end.

The Maintenance Garage maintains very good physical integrity.

B. MIES BUILDINGS

4. *IIT STORAGE – 3350 South Federal Street* *Contributing*  
*Formerly: Minerals & Metals Research Building, IITRI Materials Technology Building*  
*Architect: Mies van der Rohe, original south building 1943, north addition 1958*  
*Associate Architect: Holabird & Root*

The original, south portion, of the Minerals & Metals Research Building was Mies' first constructed building in the U.S. and designed as a research building for ARF (later IITRI) (Figure 19). The building received some acclaim shortly after construction when it was cited in the 15<sup>th</sup> anniversary exhibition of the Museum of Modern Art (1943-1944) as an outstanding example of modern functional architecture. The structure is three stories tall, rectangular in footprint, has a flat roof and has an exposed steel frame with the majority of the front, east elevation, given over to glazing except for a buff-colored brick base. Although rectangular in footprint, the building varies slightly from the twenty-four foot grid due to the size of dimensional brick that was chosen. The south elevation consists of the exposed structural steel frame with buff colored brick infill. At each structural bay of the east elevation, the glazing is further subdivided by decorative mullions that were added at a later date.

The north portion of the building, also by Mies, was constructed over a decade after the original. The steel is still expressed on the exterior but now the glazing only occupies a ribbon window at the top of each structural bay with buff-colored brick below. Mies' design for the addition closely resembles his later work for the ARF with ribbon windows providing the only opening within the wall.

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The Minerals & Metals Research /IITRI Materials Technology Building retains very good physical integrity and is particularly important since it represents Mies' earliest work in the U.S. The building was renovated in 1989 by IIT Architects.

5. *ENGINEERING RESEARCH BUILDING – 3441 South Federal Street* *Contributing*  
*Architect: Mies van der Rohe, 1944-46*  
*Associate Architect: Holabird & Root*

The Engineering Research Building (ERB) was built for ARF and was intended to house research facilities in ceramics, fluid mechanics, engines and heat transfer (Figure 20). ERB is located at the far south end of the academic campus, has a rectangular footprint corresponding to the twenty-four foot horizontal module, is two-stories tall following the twelve foot vertical module, and has a flat roof. Both of ERB's east and west elevations are similar in that they consist of an exposed reinforced concrete frame, buff colored brick and have glazing in the upper half of each structural bay. Like the Minerals & Metals Research building, the glazing has been subdivided into rows of rectangular glass lights. The window mullions are unique to the campus however, in that they are wood but detailed as if they were steel. The south and north elevation were originally similar to the east and west but the glazing has since been in-filled with brick. At the south elevation, the wall was opened up to provide a link to the later Chemical Research Building. Much of the original glass has been replaced with non-matching glass or louvers. In a few bays, the entire original windows were replaced with brick in-fill.

The building retains fair physical integrity and is currently being rehabilitated to the Secretary of the Interior's Standards.

6. *ALUMNI MEMORIAL HALL – 3201 South Dearborn* *Contributing*  
*Formerly: Navy Building*  
*Architect: Mies van der Rohe, 1945-46*  
*Associate Architect: Holabird & Root*

With Alumni Memorial Hall, Mies arrived at a vocabulary and structural expression that served as a model for the majority of buildings on the academic campus (Figure 12). Alumni Memorial Hall is a two story steel framed building with buff brick infill in the lower third of each structural bay and glazing above. The glazing is subdivided with one large pane of glass above two smaller panes. Like all of Mies' IIT buildings, it is rectangular in plan, has a flat roof and follows the twenty-four foot horizontal and twelve foot vertical module. Unlike his Minerals and Metals Research Building, building codes forced Mies to fireproof the actual structural steel, which thereby prevented its being exposed on the exterior. Mies' solution for expressing the structure was to become one of his more elegant and photographed details. Mies devised a detail in which welded steel members served as symbols for the actual structure (Figures 21 & 22). The black steel plates helped to accentuate the structural bays as well as create a sense of rhythm.

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These steel members were displayed within a reveal created by stepping back the surrounding brick as if the brick was removed and one was able to view the hidden structure. The steel frame is therefore both symbolically expressed by the steel plates and reference is made to its being hidden by the setbacks in the brick. The entrance is at the south elevation and consists of stainless steel Ellison doors and a glass and steel storefront.

Alumni Memorial Hall was built to house naval studies, ROTC and the School of Architecture before it moved to S.R. Crown Hall in 1956. Although there have been numerous modifications to the interior, the exterior retains very good physical integrity.

7. *PERLSTEIN HALL – 10 West 33<sup>rd</sup> Street* *Contributing*  
*Formerly: Metallurgy and Chemical Engineering Building*  
*Architect: Mies van der Rohe, 1945-46*  
*Associate Architect: Holabird & Root*

Perlstein Hall was built to house the metallurgical and chemical engineering laboratories, classrooms and IIT administrative offices (Figure 11). The building was named after Anne Perlstein in 1947, the wife of IIT life trustee, chairman of the board and chairman of the executive committee of Pabst Brewing Company, Harris Perlstein. The building displays the typical features of Mies' academic campus buildings: rectangular plan corresponding to the twenty-four foot module, two-stories high corresponding to twelve foot vertical module, flat roof, and constructed of steel, buff colored brick and glass. Unlike Alumni Memorial Hall, which had one large light over two smaller, Mies subdivided the glass into four equal sized lights. The actual structural steel is suggested by Mies' painted steel plate detail at the corners and at column lines. The entrance is at the south elevation and consists of a stainless steel and glass storefront and Ellison doors (Figure 23).

Perlstein Hall retains very good physical integrity.

8. *WISHNICK HALL – 3255 South Dearborn* *Contributing*  
*Formerly: Chemistry Building*  
*Architect: Mies van der Rohe, 1945-46*  
*Associate Architect: Alfred S. Alshuler and R. N. Friedman*

Wishnick Hall was built to house the chemistry laboratory, lecture rooms and classrooms (Figure 10). The building was named for Robert I. Wishnick in 1966. Robert Wishnick was an alumnus, trustee and founder of Witco Chemical Company. The building displays the typical features of Mies' academic campus buildings: rectangular plan corresponding to the twenty-four foot module, three-stories high corresponding to twelve foot vertical module, flat roof, and constructed of steel, buff colored brick and glass. Unlike Alumni Memorial Hall, which had one large light over two smaller, Mies subdivided the glass into four equal sized lights. The actual

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structural steel is suggested by Mies' painted steel plate detail at the corners and at column lines. The entrance is at the west elevation and consists of a stainless steel and glass storefront and Ellison doors. The building was rehabilitated in 1984-85, which included the replacement of the doors and masonry re-pointing.

Wishnick Hall retains very good physical integrity and is currently being rehabilitated to the Secretary of the Interior's Standards.

9. *BOILER PLANT & STEAM GENERATING PLANT – 3430 South Federal* *Contributing*  
*Architect:* *Mies van der Rohe, 1945-50 (five south bays)*  
*Sargent & Lund, 1964 (6 north bays)*  
*Associate Architect:* *Alschuler & Sincere*

The Boiler Plant & Steam Generating Plant was originally a five bayed building with a large chimney attached (Figure 13). The building is rectangular in plan, follows the master plan grid, and has a flat roof. Mies did not change his vocabulary just because it was a utilitarian building but rather remained consistent in his use of black painted steel, buff-colored brick and glazing. The windows, however, were limited to what would correspond to the first and second floor as well as at the very top of the building. Unlike his academic buildings, the actual structural steel is exposed on the exterior. Sargent & Lundy, the mechanical engineers for the original portion, added six more bays to the north in 1964 which replicates Mies' design. A buff colored masonry wall was built along Federal Street in 1957.

The Boiler Plant and Steam Generating Plant retain very good physical integrity.

10. *CHICAGO TECHNICAL CENTER, ADMINISTRATION – 3140 South Federal* *Contributing*  
*Formerly:* *Research Building*  
*Architect:* *Mies van der Rohe, 1950*  
*Associate Architect:* *Friedman, Alschuler and Sincere*

The Chicago Technical Center Administration Building was part of the Association of American Railroads (AAR) Complex and built to house both research and administrative facilities (Figure 24). AAR has since sold the property to IIT and it now houses the VanderCook College of Music. The building is situated just east of the railroad tracks in a location where subsidiary tracks branched off and ran adjacent to the west elevation. The vocabulary and expression of the building is similar to the academic buildings in that it has a rectangular footprint corresponding to the twenty-four foot module, is two-stories high following the twelve-foot vertical module, and is a steel framed structure with buff colored brick in-fill and glass. Mies also used his standard steel plate detail to express the internal structure. Like the academic buildings, the glazing in each bay fills the majority of the area. The entrance is at the east elevation and above grade. A concrete stair and porch lead to the stainless steel and glass

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storefront and Ellison doors. Vents and air conditioning units have been added to many of the windows.

The Chicago Technical Center, Administration Building retains very good physical integrity.

11. *NORTH BUILDING – 3424 South State Street* *Contributing*  
*Architect: Mies van der Rohe, 1947-50*  
*Associate Architect: Friedman, Alschuler and Sincere*

The North Building is part of the former Institute of Gas Technology Complex, which was an independent energy research and educational organization established at IIT in 1941 (Figure 14). The building is now owned by IIT. Like the other research facilities, it is situated at the south end of the campus and follows Mies' design for ERB in that it is constructed of reinforced concrete rather than structural steel. The building is rectangular in footprint, two-stories high, has a flat roof and is a reinforced concrete structure with brick infill and a row of steel windows at the uppermost part of each structural bay. By the time this building was designed, Mies appears to have settled on using reinforced concrete with only a small area given over to glazing for his research buildings. The building is entered above grade at the north elevation.

The North Building retains very good physical integrity.

12. *LIFE SCIENCES RESEARCH BUILDING – 35 West 34<sup>th</sup> Street* *Contributing*  
*Formerly: Mechanical Engineering Research Building*  
*Architect: Mies van der Rohe (southern eight bays), 1951-52*  
*Schmidt, Garden & Erickson (nine northern bays), 1961*  
*Associate Architect: Friedman, Alschuler and Sincere*

The Mies portion of the Life Sciences Research Building was originally built to house the ARF offices and laboratories and contained facilities for research in heat transfer, design of weapons systems, stress analysis and life science (Figure 25). The building runs parallel to ERB and follows Mies' formula for research buildings: rectangular foot print based on the twenty-four foot module, two-stories high based on the twelve foot module, flat roof and is constructed using a reinforced concrete structure with brick infill and a row of steel windows at the uppermost part of each structural bay. The entrance is at the east elevation and consists of a steel and glass storefront and Ellison doors. The nine-bay addition by Schmidt, Garden & Erickson closely replicates Mies' design for the original portion.

The Life Sciences Research Building retains very good physical integrity.

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13. *MECHANICAL ENGINEERING BUILDING – 3100 South Federal* *Contributing*  
*Architect: Mies van der Rohe, 1948-53*  
*Associate Architect: Friedman, Alschuler and Sincere*

The Mechanical Engineering Building housed facilities used for railroad research and belonged to the Association of American Railroads (AAR) Complex (Figure 26). The Chicago Transit Authority now occupies the building. It is situated just north of the Chicago Technical Center Administration Building, to which it is similar in design. The building has a rectangular foot print based on the twenty-four foot modular grid, two-stories high based on the twelve foot modular grid, has a flat roof, and is a steel frame structure with buff-colored brick infill and glass at both the east and west elevations. Approximately two-thirds of the east and west second floor elevations are glazed while on the first floor only the top third is glazed. In the middle of the south elevation is a large vertical lift door to allow rail car access (Figure 27). There is also an entrance door at the east elevation. In the majority of bays, openings have been made in the masonry to allow for air conditioning units.

The Mechanical Engineering Building retains very good physical integrity.

14. *SOUTH BUILDING – 3424 South State Street* *Contributing*  
*Formerly: ARF/IITRI Physics and Electrical Engineering Research Building*  
*Architect: Mies van der Rohe, 1955*  
*Associate Architect: Naess and Murphy Associates*

South Building was intended to house ARF's research facilities, and at one time contained the Univac 1105 computer and the first industrial nuclear reactor in the U.S (Figure 28). In 1976, IITRI transferred the building to IIT who, in-turn, sold it that same year to the Institute of Gas Technology. The building is rectangular in footprint based on the twenty-four foot module, four-stories high based on the twelve-foot module, has a flat roof and has brick infill between the exposed concrete structure and a row of windows at the upper two-thirds of each structural bay. Similar to North Building, the first floor is slightly above grade.

The South Building has very good physical integrity.

15. *S. R. CROWN HALL – 3360 South State Street* *Contributing*  
*(Chicago Landmark, National Historic Landmark)*  
*Architect: Mies van der Rohe, 1950-56*  
*Associate Architect: Pace Associates*

One of Mies' favorite buildings, S.R. Crown Hall breaks away from his typical campus masonry buildings and epitomizes his development of the clear-span structure (Figure 15). The building was named after S.R. Crown, the brother of former IIT trustee and chairman, Henry Crown and has been designated a National Historic Landmark as well as a Chicago Landmark. Built to



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house the Department of Architecture with offices in the basement, Mies treated it as special and therefore worthy of distinction. Crown Hall maintains the vocabulary of a rectangular footprint and flat roof common to the Mies plan, but the building varies from the modular grid Mies used to guide his other campus buildings. Mies furthermore simplified the vocabulary to painted black steel and glass in which large roof girders are supported on the exterior columns thereby creating a single open space on the interior. Since Crown Hall was just a one-story building, Mies did not have to fire-proof the structural steel and was therefore allowed to keep it exposed. The glazing also differs in that the basement windows and lower first floor windows have translucent glass. The main entrance faces south with the first floor raised off the ground and accessed by an elegant travertine staircase. A simplified staircase allows access to the main level of the north elevation while two concrete stairs access the basement.

There have been a few alterations to the exterior which include all new glazing and a faithful reconstruction of the south porch. Despite these minor alterations, S.R. Crown Hall has very good physical integrity and is currently being rehabilitated to the Secretary of the Interior's Standards.

16. **LABORATORY BUILDING – 3120 South Dearborn** *Contributing*  
*Architect: Mies van der Rohe (main building), 1956*  
*Friedman, Alschuler and Sincere (north one-story addition & tower), 1960*  
*Associate Architect: Friedman, Alschuler and Sincere*

The Laboratory Building is the last of the buildings Mies designed for the Association of American Railroads (AAR) Complex (Figure 29). The Chicago Transit Authority now occupies the building. The building has a rectangular base following the twenty-four foot module, has a flat roof and is constructed of painted steel, buff-colored brick and glass. Similar to Mies' first campus building, the Minerals & Metals Research Building, the brick infill only comprises the lower third of the south elevation and approximately two-thirds of the north elevation. Above the brick base are rectangular glass lights separated by steel mullions. The east and west elevations consist primarily of painted steel and brick infill, while the west elevation is distinguished by a large vertical lift door.

The one-story north addition with tower by Friedman, Alschuler and Sincere closely follows Mies' vocabulary of the main building, with ribbon windows occupying approximately the upper third of each structural bay. The tower appears to have windows only at the very top with the remaining portion of the elevation consisting of exposed structural steel and buff colored brick.

The Laboratory Building has very good physical integrity.

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17. *IEGEL HALL – 3301 South Dearborn* *Contributing*  
*Formerly:* *Lewis Building*  
*Architect:* *Mies van der Rohe, 1956-57*  
*Associate Architect:* *Pace Associates*

Siegel Hall was built to house the electrical engineering and physics teaching facility and was named for David T. Siegel, an IIT Trustee and founder of Ohmite Manufacturing Company (Figure 30). The building displays the typical features of Mies' academic campus buildings: rectangular plan corresponding to the twenty-four foot module, three-stories high corresponding to twelve foot vertical module, flat roof, and steel framed structure with buff colored brick and glass. It also contains Mies' famous steel plate detail at the corners and at column lines. Unlike Alumni Memorial Hall, which had one large light over two smaller, Mies subdivided the glass into four equal sized lights. The entrance is at the west elevation and consists of a stainless steel and glass storefront and Ellison doors. Although Siegel Hall was not built until 1956, Mies designed the building in 1945 and it is almost an exact replica of Wishnick Hall.

Siegel Hall has very good physical integrity.

C. POST-MIES BUILDINGS

18. *CHEMISTRY RESEARCH BUILDING (CRB)–3440 South Dearborn* *Contributing*  
*Architect:* *Schmidt, Garden & Erikson, 1959-60*

The Chemistry Research Building was the first building constructed at the academic campus after Mies' departure as campus architect (Figure 18). CRB was built for ARF/IITRI to house facilities for chemistry, chemical engineering and life science research and is located at the far south end of campus. Schmidt, Garden & Erikson closely followed Mies' model for research buildings, such as the North Building. The building has a rectangular footprint, is three stories tall, has a flat roof, and has an exposed reinforced concrete structure with buff-colored brick and glass in-fill. The glazing consists of steel ribbon windows at the top third of each structural bay. The entrance is at the east elevation and consists of a steel and glass storefront and Ellison doors. Windows have been modified and there have been alterations to the entry.

Schmidt, Garden & Erikson also designed two connecting wings that serve as staircases with Miesian stairs (Figures 31 & 32). The wings extend out from CRB's north elevation and lead to both ERB and the Life Sciences Research Building. The wings have been set back from both Federal and Dearborn Streets and consist of black painted steel and glass, reminiscent of Mies' vocabulary for Crown Hall.

CRB and the connection wings retain good physical integrity.

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19. GROVER M. HERMANN HALL (HUB) -- 3241 South Federal *Contributing*  
*Architect: Walter Netsch of Skidmore, Owings and Merrill, 1959-60*

HUB was SOM's first building at the academic campus and occupies a prominent location just north of 33<sup>rd</sup> Street (Figure 33). It was built to house the student union and named after former IIT Life Trustee and chairman of Martin Marietta Co., Grover M. Herman. Netsch decided to model HUB after S.R. Crown Hall, complete with roof girders suggestive of a clear-span building. The building has a rectangular footprint, is one-story high, has a flat roof, and consists of a painted black steel structure and tinted glazing. Mies planned for a large building at this location. HUB, although shifted slightly to the south, conforms to the plan. The main entrance, which is raised above grade, is at the east elevation and accessed by a steel and travertine staircase. This entrance is repeated at the west elevation. Although Netsch used Miesian vocabulary, HUB lacks Crown Hall's structural integrity. Netsch only suggests a clear-span structure with the large roof girders, but they are little more than decoration since the roof is supported by interior columns. This structural deception becomes quite obvious at the west and east elevations as the roof girders are clumsily placed directly over the entrance doors.

Grover M. Hermann Hall has very good physical integrity.

20. PAUL V. GALVIN LIBRARY -- 3241 South Federal *Contributing*  
*Formerly: John Crerar Library*  
*Architect: Walter Netsch of Skidmore, Owings and Merrill, 1962*

Galvin library is Netsch's second building on the IIT campus and is similar to Hermann Hall, both architecturally and in its prominent size and placement at the campus core (Figure 16). Galvin library was originally named after John Crerar and housed the rare book collection of James S. Kemper. James Kemper was a former IIT Life Trustee and U.S. Ambassador who donated a significant amount towards the construction of the library. In 1985 the Crerar library was transferred to the University of Chicago and the library was renamed Paul V. Galvin Library, after the founder of Motorola, Paul Galvin.

Mies had designed a library at that location (Figure 34) which was similar to his Commons Building on the east campus. Unlike the Commons Building, which is constructed of painted steel, buff-colored brick and glass, Netsch's library follows the precedent set at Crown Hall of a steel and glass clear-span structure. The building has a rectangular footprint, is two-stories tall including basement, and has a flat roof. Netsch roughly followed Mies' master plan module but he did shift the building slightly to the north. Although similar in vocabulary and structural expression to Crown Hall, Galvin Library differs from its precedent by sinking into the ground rather than setting it on a base. The main entrance is at the east elevation and accessed by

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descending concrete stairs into a sunken plaza. Like Hermann Hall, Galvin Library's roof girders are ornamental rather than structural since the roof rests on interior columns.

Paul V. Galvin Library has very good physical integrity.

21. *IIT RESEARCH INSTITUTE TOWER – 10 West 35<sup>th</sup> Street* *Contributing*  
*Architect: Schmidt, Garden and Erikson, 1963-64*

The twenty-story IITRI Tower is the tallest building on campus and unique to the academic campus with its high-rise design (Figure 18). The Tower was built to house the IITRI facilities and follows the precedent of Mies' residential dormitory buildings on the east campus, such as Bailey Hall Apartments. The Tower has a rectangular footprint, is twenty-stories tall, has a flat roof, and has a reinforced concrete structure with glazing between. Each of its elevations are similar, differing only in the amount of structural bays. The entrance and ground floor are recessed, providing an expression of the columns as pilotis similar to Mies' high-rises on the east campus. Also like Mies' architecture, the Tower is expressive of its structure and the tinted glazing serves to accentuate the structural grid.

The IIT Research Institute Tower has very good physical integrity.

22. *POWER PLANT – 3424 South State Street* *Contributing*  
*Architect: Schmidt, Garden & Erikson, 1964.*

The Power Plant started as a research project and was constructed to be a total energy center providing heat and electricity from gas generators. The building is part of the former Institute of Gas Technology Complex and lies between the Life Sciences Research Building and the Central building. The design evokes a simple utilitarian concrete structure with glazing at the first floor level and two large smoke stacks that rise from the flat roof. Although not notable for its architectural design, the Power Plant's austerity is in character with the concrete research buildings surrounding it.

The building has good physical integrity.

23. *CENTRAL BUILDING – 3424 South State Street* *Contributing*  
*Architect: Schmidt, Garden & Erikson, 1964-65*

The Central Building is part of the former Institute of Gas Technology Complex, which was an independent energy research and educational organization established at IIT in 1941 (Figures 14 & 28). Central Building was intended to house the Institute's research facilities. Schmidt, Garden & Erikson closely followed Mies' model for research buildings, specifically the North Building. The building has a rectangular footprint, is four stories tall with the first floor slightly

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above grade, has a flat roof, and has an exposed reinforced concrete structure with brick and glass in-fill. The glazing consists of steel ribbon windows at the top third of each structural bay. The building is accessed at the north elevation and is connected to the North and South Building via circulation wings.

The Central Building has very good physical integrity.

24. *LIFE SCIENCES BUILDING – 3105 South Dearborn* *Contributing*  
*Architect: Myron Goldsmith of Skidmore, Owings & Merrill, 1966*

The Life Sciences Building was Myron Goldsmith's first building on the academic campus and was built to house a variety of facilities, including the Lewis College of Sciences and Letters, the Biology Department, the Center for the Study of Ethics in the Professions, and the Psychology and Social Sciences Departments (Figure 35). Goldsmith, being a former student and employee of Mies, carefully followed the Miesian academic campus building model as laid out in Alumni Memorial Hall. The building is rectangular in footprint, three-stories tall, has a flat roof, and has a black painted steel frame structure with buff-colored brick infill and glazing above. Goldsmith even replicated Mies' steel plate detail at the corners and interior column lines. The one obvious difference between Goldsmith's building and the typical Mies academic building is that the glazing is not subdivided by mullions but rather consists of one large pane of glass (Figure 30). The entrance is at the east elevation and consists of a stainless steel and glass storefront and Ellison doors.

The Life Sciences Building has very good physical integrity.

25. *ENGINEERING I BUILDING – 10 West 32<sup>nd</sup> Street* *Contributing*  
*Architect: Myron Goldsmith of Skidmore, Owings & Merrill, 1968*

The Engineering I Building was designed by Myron Goldsmith of SOM and was intended for and used as the College of Engineering, Mathematics, Mechanical and Aerospace Engineering (Figure 17). Goldsmith, being a former student and employee of Mies, carefully followed the Miesian academic campus building model as laid out in Alumni Memorial Hall. The building is rectangular in footprint, two-stories tall, has a flat roof, and has a black painted steel frame structure with buff-colored brick infill and glazing above. Goldsmith even replicated Mies' steel plate detail at the corners and column lines. The one obvious difference between Goldsmith's building and the typical Mies academic building is that the glazing is not subdivided by mullions but rather consists of one large pane of glass. The entrance is at the south elevation and consists of a stainless steel and glass storefront and Ellison doors.

The Engineering I Building has very good physical integrity.

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26. *HAROLD LEONARD STUART BUILDING – 10 West 32<sup>nd</sup> Street* *Contributing*  
*Architect: Myron Goldsmith of Skidmore, Owings & Merrill, 1969-71*

The Harold Leonard Stuart Building was designed by Myron Goldsmith of SOM and was intended for and used as the School of Business Administration (Figure 36). The building was named for former Lewis Institute alumnus, Harold Leonard Stuart. Goldsmith, a former student and employee of Mies, carefully followed the Miesian academic campus building model as laid out in Alumni Memorial Hall. The building is rectangular in footprint, two-stories tall, has a flat roof, and black painted steel frame with buff-colored brick infill and glazing above. Goldsmith even replicated Mies' steel plate detail at the corners and column lines. The one obvious difference between Goldsmith's building and the typical Mies academic building is that the glazing is not subdivided by mullions but rather consists of one large pane of glass. The entrance is at the south elevation and consists of a steel and glass storefront and Ellison doors.

The Harold Leonard Stuart Building has very good physical integrity.

### Landscaping

The landscaping at IIT was never formally conceived of in a master plan but rather developed haphazardly, often as buildings were built. Mies seemed to indicate on his early master plan perspective drawings areas to be designated as green spaces, but the trees are generically located and not indicative of an actual planting scheme. The IIT campus landscaping did receive some direction however, when famed Prairie School landscape architect Alfred Caldwell joined the architecture faculty. As a staff member and close collaborator with Mies and Ludwig Hillberseimer, Caldwell was often asked to design the landscape around specific buildings.

Alfred Caldwell's designs can be described as naturalistic, in which he uses only a handful of native species that are planted in a seemingly random order in imitation of how they would grow in the wild. He was fond of planting in clusters separated by green spaces. The IIT campus is described as having a "closed, internal focus, that is, that plantings are placed to focus on the center of the spaces and turn away from the adjacent spaces."<sup>3</sup> The typical species of trees used at IIT are the Honey Locust (typically grow between thirty and forty feet tall) and Cockspur Hawthorns (smaller plant which blooms in the spring). Boston ivy was often planted in a random order at the perimeter of the buildings, which served to soften the hardness of Mies' buildings. There is evidence that Caldwell designed the landscape around S.R. Crown Hall (Figure 37) and Perlstein Hall, but there are signs of his influence at other areas of the academic campus as well, such as the open spaces north of HUB and south of Alumni Memorial Hall. The difficulty in tracking Caldwell's landscapes is that there are

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<sup>3</sup> Michael Van Valkenburgh Associates, Inc. in association with Peter Lindsay Schaudt  
Landscape Architecture, Inc. "IIT in the Landscape: 1999 Illinois Institute of Technology West Campus Landscape Master Plan," 13.

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very few known drawings. Besides the issue of lack of documentation, Caldwell's landscape may have been further obscured by more recent plantings and dead trees not being replaced.

Because of the lack of maintenance, the integrity of the overall landscaping is fair. Some parts of campus fared better than others, such as around Crown Hall, and the spaces south of Perlstein and Alumni Memorial Halls. Gaps and missing vegetation occur though, and the campus is currently implementing a master plan to restore much of it.

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*"Whenever technology reaches its real fulfillment, it transcends into architecture."<sup>4</sup>  
Mies van der Rohe*

## STATEMENT OF SIGNIFICANCE

The Illinois Institute of Technology Academic Campus meets National Register Criterion A for education and C for architecture and planning. IIT is locally significant as a technological education/research institute and nationally significant for its architecture, being the home to one of the largest collections of Mies designed and inspired buildings in the world. Mies van der Rohe was one of the most important proponents of the International Style in the United States following World War II and the IIT campus is where he developed his particular interpretation of the style. This version of the International Style, sometimes known as Miesian, found widespread support amongst post-war architects in Chicago and throughout the country as the nation rapidly expanded economically and saw the greatest building surge in its history. IIT is also important for its renowned former and current students and faculty, the technological advances which came out of its research institute, and for the fact that it was one of the first major campuses to be completely designed based on modernist architectural principles. The period of significance for the historic district is from 1893, when the school began, to 1971 when the last building was built. IIT also meets Criteria Consideration G, since some buildings within the district are less than fifty-years old. The later buildings resulted from identical historical patterns as the earlier buildings and represent a continuation of Mies' planned design and are integral to the district.

## IIT AS AN EDUCATIONAL/RESEARCH INSTITUTION<sup>5</sup>

### *Armour Institute of Technology (AIT)*

Armour Institute of Technology's (AIT) mission was both pragmatic and philanthropic: to provide underprivileged workers with the means necessary to secure a better future. This principle can best be summed up in an 1890 sermon given by its co-founder and first president, Reverend Frank Wakely Gunsaulus, when he declared that if given a million dollars he would "establish a school to help young people who wanted to help themselves."<sup>6</sup> Among those who heard the "Million Dollar Sermon" was Philip D. Armour, the prominent Chicago meat-packer and industrialist. He responded by offering to donate one million dollars for a new school if Reverend Gunsaulus would become the first president. The offer was accepted and the Armour Institute was born.

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<sup>4</sup> Mies van der Rohe. "Architecture and Technology." *Arts and Architecture* 67, no. 10 (1950): 30.

<sup>5</sup> This section, "IIT as an Educational/Research Institution," is largely derived from several sources, including Irene Macauley, *The Heritage of Illinois Institute of Technology* (Chicago: IIT, 1978); Rolf Achilles and Charlotte Myhrum, *Guide to the Campus of the Illinois Institute of Technology* (Chicago: Mies Centennial Project of the Illinois Institute of Technology, 1986); *Converging Visions: The Making of a University* (Chicago: IIT, 1991); McClier, S.R. *Crown Hall: Historic Structures Report* (2000); and Laura E. Talley, *IIT Research Institute: A Retrospective* (Chicago: IIT Research Institute, 2002).

<sup>6</sup> Achilles, 2.



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Armour Institute was modeled after European technical institutes and provided Chicago's first degree-granting institution of engineering education. Its success was immediate as over 700 students walked through the door when it first opened in September 1893<sup>7</sup>. Armour Institute soon changed its name to Armour Institute of Technology to reflect its focus. The curriculum consisted of engineering, chemistry, architecture and library science. The architectural component was enlarged with the merger between AIT and the Art Institute in 1895, creating the Chicago School of Architecture. Founded the previous year, the Art Institute's Beaux Arts architecture program benefited from the merger by being able to offer technical classes that were not previously available. The Chicago School of Architecture became the eleventh architecture school of collegiate rank established in the country and the only one in Chicago.<sup>8</sup>

By the turn of the twentieth century, AIT's academic reputation was on the rise. In 1901, AIT ranked fourteenth in size out of 114 technical institutions in the United States.<sup>9</sup> The research program was at the heart of its early success and included the testing of Lee De Forest's three-electrode vacuum tube in 1906, that later made the development of the radio possible. In fact, AIT maintained a close working relationship with local industries, which sponsored many of its research projects.

### **Lewis Institute**

Lewis Institute, which would later merge with AIT to create IIT, was formed in 1896 and was located at Madison and Damen Avenues, on Chicago's west side (Figure 38). The Institute was named after the successful businessman, Allen Cleveland Lewis, who left a substantial endowment in his will to establish the institute. Initially, Lewis Institute offered a four-year high school diploma, a two-year college program, and evening classes, which may have been one of the earliest adult education programs in the country.<sup>10</sup> Later these programs were reorganized into three divisions: engineering and mechanical arts, general science, and liberal arts. In 1917, Lewis discontinued its high school program and became a fully accredited college, which offered a four-year degree.

Although located in different sections of the city, Lewis and Armour Institutes shared a similar mission. Both sought to provide a technical education to those who desired the chance to better themselves. Neither school appealed to the privileged, unlike Northwestern University and the University of Chicago, but instead appealed to those who would have little chance of escaping their dismal, working class and tenement surroundings on their own. Both Northwestern and University of Chicago were established as institutions for higher education and research. Lewis and AIT on the other hand, were established to give practical instruction that would be immediately beneficial in the job market. Given their mutual concern for Chicago's working class, a merger between the two Institutes appeared natural.

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<sup>7</sup> *Converging Visions*.

<sup>8</sup> *Ibid.*

<sup>9</sup> *Ibid.*

<sup>10</sup> *Converging Visions: The Making of a University*.

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***Illinois Institute of Technology***

On October 9, 1939, the Board of Trustees for Armour and Lewis Institutes agreed to a merger, thus creating Illinois Institute of Technology (IIT). The merger was made official in April 1940 with Judge Jerome Dunne's approval and joined together two local technical schools that shared a similar mission of providing practical education to the working class. AIT Henry Heald assumed the presidency of the new Institute and continued the process of physical expansion originally envisioned for AIT. As part of the merger, the campuses were consolidated into AIT's campus.

One of the most significant decisions made by the new Institute's administration was to remain on the South Side, serving as a catalyst for growth in the economically depressed community. Although expansion was delayed by World War II, growth began in earnest in the booming post-war years. From a mere nine acres, IIT's master plan called for the campus to grow to approximately 60 acres. IIT's decision to stay in the area demonstrated an investment in the decaying community, which was matched by other area institutions, such as Michael Reese Hospital and R.R. Donnelly's Lakeside Press and inspired the redevelopment of the near south side. Unfortunately, urban redevelopment at that time meant the wholesale demolition of established neighborhoods and their replacement with large-scale public housing. Although these techniques ultimately failed as redevelopment strategies, IIT has remained a stabilizing force in the area, which has lately seen renewed attention and investment.

During the 1930s and 1940s, IIT gathered together a prestigious group of educators and researchers that would help elevate IIT's status to one of the country's best educational/research institutes. Besides convincing Mies van der Rohe to head the school of architecture, Heald also brought Nobel Laureate Economist Herbert Simon, renowned semanticist S.I. Hayakawa, and heat transfer expert Max Jakob to IIT.

***Institute of Design***

In 1949, Heald oversaw another merger, this one between IIT and the Institute of Design. The Institute of Design was the creation of former German Bauhaus teacher and artist Laszlo Moholy-Nagy. Moholy-Nagy came to Chicago in 1937 at the invitation of the Association of Arts and Industries, a philanthropic businessmen's organization. Upon arrival, Moholy-Nagy organized a design school, which he called the New Bauhaus, with a structure similar to the German Bauhaus.

Moholy-Nagy's radical approach to design and teaching, however, were too much for the Association of Arts and Industries to bear, and by 1938 its financial support was ended. The school, forced to subsist on its own, survived and struggled through World War II. During these lean years, its name was changed to the Institute of Design. Upon Moholy-Nagy's death in 1946, the directorship passed on to Serge Chermayeff. When merged with IIT in 1949, the Institute of Design became its own department within the university, with Chermayeff continuing as director. In 1955, the School of Architecture was merged with the Institute of Design and the School of City and Regional Planning to create a new College of Architecture. The construction of Crown Hall was, in-part, a response to the establishment of the new College.

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Although the Institute of Design did not focus specifically in any one media, it was their photography program that was to gain national recognition. Moholy-Nagy was already an important experimental photographer in his own right based on his work with the Bauhaus, but he ensured the Institute's reputation by inviting some of the leading American photographers to join the faculty. During the early 1940s, Moholy-Nagy invited the famed experimental photographer, Arthur Siegel, to establish and direct the photography department at the Institute. Siegel had previously studied at Moholy-Nagy's New Bauhaus in Chicago during the late 1930s where he created his first abstract photographs. In addition to Siegel, Moholy-Nagy made another significant move by inviting the self-taught experimental photographer, Harry Callahan, to join faculty during the late 1940s. Callahan became chairman of the department in 1949 and remained at the Institute until 1961 when he left to become chairman of the photography department at the Rhode Island School of Design. In 1948, Callahan met the eminent photographer Aaron Siskind, who, in turn, joined the faculty of the Institute of Design in 1951. Together, the three photographers would have a lasting impact on both the school and American photography, inspiring many through their teaching and work. Although perhaps not as nationally famous, another notable photographer to come out of the Institute of Design was Richard Nickel. Nickel became famous for documenting many of Chicago's architectural masterpieces that were doomed for demolition, especially the works of Adler and Sullivan. Through his efforts, he created a consciousness among not only architects but also the general public as to the importance of these buildings and their need to be preserved. With Mies, Hilberseimer, Peterhans, and Caldwell teaching upstairs and Siegel, Callahan and Siskind downstairs, Crown Hall, and by extension the IIT campus, was truly a powerhouse of talent which would leave a lasting impact on American design.

***Armour Research Foundation/Illinois Institute of Technology Research Institute (ARF/IITRI)***

The Armour Research Foundation (ARF) was conceived as a means of coping with the increasing amount of research contracts from local business and industry. ARF was established on April 6, 1936, as an independent, not-for-profit research organization and, according to the Certificate of Incorporation, its role was, "... To experiment upon, test, promote and develop the public, scientific, and commercial value of inventions, discoveries and processes."<sup>11</sup> Shortly after incorporation, Thomas C. Poulter was appointed the first director. Poulter, already renowned for his assistance in the rescue of Admiral Richard E. Byrd during his first Antarctica expedition, brought the foundation national exposure soon after being appointed director at ARF by leading the design and construction of the Snow Cruiser. The Snow Cruiser was a giant mobile laboratory that was loaned to the government for Admiral Byrd's planned third expedition to Antarctica, which unfortunately never took place due to the advent of World War II. As the country prepared for the war, ARF became heavily involved with military research. By 1946, the foundation had grown from a mere ten people to over four hundred, with eight research divisions that generated approximately \$2.1 million in annual revenue.<sup>12</sup>

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<sup>11</sup> Talley, 12.

<sup>12</sup> Ibid., 9.

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Growth continued even after the Korean War when many other research institutes were not able to successfully make the transition back to non-military research and by 1956 ARF began to expand. The new building program would include a comprehensive group of industrial research facilities located at the southwest corner of the IIT campus. ARF had already established a presence at this part of the campus immediately after the war with Mies' Engineering Research Building (1945). SGE would be the architect for all of the post-1956 IITRI commissions, designing the Chemical Research Building (1960), Life Sciences Research Building addition (1961), and IIT Research Institute Tower (1964).

In 1963 ARF changed its name to the IIT Research Institute (IITRI), which reflected not only the school's name change but also to establish "a unity of identification of the activities on IIT campus and to make clear the scope of this outstanding center of education and research."<sup>13</sup> IITRI continued to grow in size and reputation, taking on a variety of contracts from entities as diverse as the National Aeronautics and Space Administration (NASA) to the National Cancer Institute (NCI) to even the U.S. Golf Association (USGA). By 2002, IITRI consisted of over 1,700 staff members and generated roughly \$220 million in annual revenue for research.<sup>14</sup>

Despite the success, on December 20<sup>th</sup>, 2002, IITRI sold most of its assets, except the life sciences division, to Alion Science and Technology Corporation. Alion is a for-profit engineering and research corporation. According to a press release, the reasons for the sale include IIT's ability to increase its endowment and the opportunity for IITRI employees to have ownership in the new research entity.<sup>15</sup> Many of the former IITRI employees will now have a better chance with Alion to compete for top research commissions against other private, for profit, institutions. IITRI still has a presence on campus, although significantly diminished, and will remain a not-for-profit research institution.

From ARF/IITRI's inception, it has attracted renowned scientists who have designed, developed and/or constructed items useful from space to the dinner table. Two of its earliest scientists with national reputations were Max Jakob, an expert on heat transfer, and Thomas Poulter, who led the design and construction of the Snow Cruiser. ARF was also fortunate in its relationship with AIT/IIT, by which it acquired Marvin Camras who designed and built the magnetic tape recorder while still a student at IIT. He joined ARF immediately out of school in 1940 where he continued to develop recording technology. Camras' inventions include the two-track tape recorder, magnetic sound tracks for motion pictures, and even the prototype videotape recorder.

ARF/IITRI received numerous military contracts during the 1940s and 50s, which established a relationship with governmental agencies and the U.S. military. Examples of their military applications include devices to correct rocket booster trajectories, the development of high-speed weaponry and the development of a combination of alloys with titanium. It was this last development that is credited with not only saving the Air Force's gas turbine engine program, but is currently used in almost all aircraft and spacecraft as well as advanced armor applications such as the Bradley Fighting Vehicle and M1A2 Abrams Tank upgrade program. ARF/IITRI's relationship with Department of Defense continued into the 1960s and led to the invention of the

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<sup>13</sup> Ibid., 11.

<sup>14</sup> Ibid., 11.

<sup>15</sup> Willamette Management Associates, Media Relations: Press Releases (January 2003).

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SPECTRUMXX1, a tool used by the National Telecommunications and Information Administration to allocate and assign frequencies for federal government use. During the early stages of the space program, NASA hired IITRI to design a thermal coating that could be applied to protect satellites and spacecraft from the harsh conditions of outer space. In 1969, various surfaces of the Apollo Command Module and Lunar Module were coated by IITRI with two thermal paints. IITRI's thermal coatings are now used on 95% of satellites.<sup>16</sup>

Perhaps the most bizarre commission ARF received from the Department of Defense was in 1958 when ARF/IITRI was hired to investigate the visibility and effects of a nuclear explosion on the moon. The project, called "A Study of Lunar Research Flights," was an attempt by the U.S. to assert its military and scientific might by detonating a nuclear bomb on the moon so it would be visible on earth. The former Soviet Union had successfully launched Sputnik and the U.S. was concerned about falling behind. Fortunately, this shortsighted U.S. effort to regain the lead in the "space race" was never implemented.

Not all ARF/IITRI contracts were for military applications, however, and some of the most surprising products of ARF/IITRI's research contracts directly benefited the average consumer. As mentioned, Camras' tape recorder had a direct impact on the entertainment industry, but there were more subtle inventions as well. E.J. Brach & Sons sought ARF to create a production process by which they could create candy in a consistent and efficient manner. A contract with a hot dog manufacturer led to the development of the automated wiener linking machine while another contract with Jolly Time led to ARF improving the popcorn popping performance from 73% to 94%.<sup>17</sup> ARF also developed the "one-package" pie filling which allowed one to make a filling instantly by just adding water. Besides food related research, ARF/IITRI has long been in the forefront of cancer prevention research and was responsible for the pre-clinical work on a drug named "tamoxifen." This drug is now widely used on the preventative side for breast cancer in women who have had breast cancer in the past.

Some of ARF/IITRI's most entertaining research has been conducted for the USGA and to clear up a baseball controversy. As more and more golf ball manufacturers added their products to the market, often widely varying in performance, the USGA commissioned ARF to develop a repeatable methodology to accurately test and classify these golf balls. The resulting machine helped the USGA create a standard set of specifications for golf balls used in tournament play and a new version of the machine, by IITRI, is still in use. ARF likewise helped standardize scorings and markings on clubs as well as researching materials and methods of improving golf club shafts. The 1999 creation of the golf ball sensing system allowed one to detect the speed, elevation angle, direction, and spin of a golf ball hit by a player in an indoor space and is now used in video arcade games and simulators in golf centers. Along with the golf ball, ARF was also called upon to clear up a controversy regarding the baseball. In 1961, when Roger Marris hit 61 homeruns and subsequently beat Babe Ruth's old record, critics were claiming that it was an unfair comparison since the baseball was supposedly "livelier," or able to be hit a greater distance, than it was in Ruth's time. Dr. Caroline Miller, ARF's chief scientist and expert on aging effects in polymers, headed the analysis and testing of the baseballs. A series of tests were conducted on balls from different periods which included analyzing the balls in a wind tunnel,

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<sup>16</sup> Talley, 46.

<sup>17</sup> Ibid., 33.

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examining them under an infrared microscope, and testing them in a custom designed batting machine. ARF was successfully able to determine that the 1961 ball was in-fact "livelier."

#### **Other Research Associations/Organizations**

Although ARF/IITRI was the main research organization on campus, there were other notable associations/organizations on campus. In 1941, the Institute of Gas Technology (IGT) became affiliated with IIT as a research facility for the nation's gas utility industry. IGT's earliest buildings date back to 1950 with Mies' North Building, which would become one of the prototypes for research/laboratory buildings on campus. The institute remained a presence at the university until 1995, at which time it sold its buildings to IIT. The second major association was the American Association of Railroads (AAR), which established its presence at IIT in 1950 with Mies' Chicago Technical Center, Administration. AAR would soon develop a complex of three Mies designed technical facilities, all located at the northwest edge of the academic campus, adjacent to the Rock Island District Railroad tracks. Like IGT, AAR relocated and sold their properties, which now house facilities for the CTA and the VanderCook College of Music.

#### **MIES AND HIS INFLUENCE**

##### ***Ludwig Mies Van Der Rohe – Brief Biography***

Ludwig Mies, known by his pseudonym Mies van der Rohe, was born in Aachen, Germany, on March 27, 1886. Mies intended to follow in his father's footsteps and carry on the trade of a master mason, in which he briefly served as an apprentice. After being turned down from a wage earning position as a mason, he took a drafting position at a stucco factory and in local architectural offices. In 1905, Mies moved to Berlin and found a job with Bruno Paul, an accomplished furniture designer who was beginning to take on complete architectural commissions. By the time Mies arrived at Paul's office, he brought a strong knowledge of the building arts. In return, while working with Paul, Mies learned a great deal about wood working, which complemented his knowledge of masonry. In 1908, Mies took a position with architect Peter Behrens, the mentor of two of the twentieth century's greatest modern architects: Walter Gropius and Le Corbusier. Behren's architecture was largely based on German architect Karl Friedrich Schinkel's restrained classicism, but he was later to embrace the geometric simplification of the German *sachlich* movement popular in the early twentieth century. Both Schinkel and Behren's philosophies were to remain with Mies for the rest of his career which, according to *The Thames and Hudson Encyclopedia of 20<sup>th</sup> Century Architecture*, was essentially to "create a modern architecture with a neo-classical severity of means, purity of form, perfection of proportions, elegance of detail and dignity of expression."<sup>18</sup>

Mies left Behren's office in 1912 and went on his own, working on mostly small, residential commissions. During the period following World War I, Mies began to drift towards a modern aesthetic and to align himself with figures of the modern movement. He joined the *Novembergruppe*, a circle of artists and designers

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<sup>18</sup> *The Thames and Hudson Encyclopedia of 20<sup>th</sup> Century Architecture* ed. Vittorio M. Lampugnani (Thames and Hudson, 1989), 222.

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promoting revolutionary art, including Expressionism, Constructivism, and de Stijl. Some of Mies' unbuilt projects of the 1920s, such as glass clad skyscrapers, demonstrate the development of his modernist aesthetic and, though unbuilt, had an effect on other modernists. In 1926, Mies was made artistic director of the Deutscher Werkbund's Weissenhofsiedlung housing exposition in Stuttgart, in which he designed the plan and an apartment building. This exhibition was a significant promotion of the International Style and influenced architects in Europe and the U.S. A few years later, Mies designed the Barcelona Pavilion (1929) and Tugendhat House (1930), so that by 1930, Mies was firmly established in the forefront of modern European architecture.

In 1930, Mies was appointed director of the famed Bauhaus in Dessau. Founded by Walter Gropius in 1919, the Bauhaus was the center for modernist thinking, design and art in Europe throughout the 1920s. The Bauhaus was governed by Gropius' principle of a unity between all arts and the assertion that the base for any art was craftsmanship. Gropius created a curriculum focused on the workshop in which the basics of materials, colors and forms were taught by both craftsman and artists. Although this focus on the crafts would remain throughout the life of the school, the Bauhaus did adapt to the reality of an industrialized technical world by looking at how technology could be applied to design to serve both functional as well as aesthetic requirements. These philosophies fit well with Mies' thoughts on architecture, making him a natural to replace Gropius. As Germany succumbed to Nazi control, the Nazi party's conservative policies were in direct opposition to the controversial Bauhaus and following the Nazi takeover of the Dessau city council in 1932, Mies was forced to close the school.

Several years after the closure of the Bauhaus, Mies received a commission from the Museum of Modern Art (MoMA) and was soon offered teaching positions at both Harvard University and Armour Institute of Technology (AIT). With the Harvard position, Mies had to compete with former Bauhaus director Walter Gropius, who eventually received the position as head of the Architecture Department. Mies instead accepted the position at Armour Institute of Technology, later IIT, as head of the Department of Architecture after the two previous opportunities fell through. During his negotiations with IIT, Mies recommended three new teachers – Ludwig Hilberseimer, Walter Peterhans, and John Barney Rodgers – all former members of the Bauhaus. Hilberseimer's specialty was urban planning and he would eventually create a planning department at IIT while Peterhans was a photographer as well as gifted mathematician, who taught what was called "visual training." Rodgers was an American who studied at the Bauhaus and taught a variety of classes at IIT as well as serving as an interpreter for both Mies and Hilberseimer. Soon after his arrival, Mies in conjunction with his ex-Bauhaus staff, developed a new curriculum based on his experiences as a craftsman and at the Bauhaus. Mies likewise, utilized his design studios as "idea factories" where he could experiment with new ideas and concepts before their implementation.<sup>19</sup> It is from these "idea factories" that Mies worked out not only the master plan for the IIT campus but also the clear-span building and the concept of universal space from which emerged one of his masterpieces, Crown Hall. Mies resigned from IIT in 1958.

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<sup>19</sup> Schutze, Franz. *Mies van der Rohe: A Critical Biography* (Chicago: University of Chicago Press, 1985) 230.

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During his tenure at IIT, Mies continued his own private practice, bringing to fruition many of the ideas developed in his design studios. His development of the clear span, universal space and the skyscraper were some of his most significant contributions. The Farnsworth House (1950) was one of the first buildings where Mies created what he called "universal space" or a space which is adaptable with no fixed functions. As a means of creating this universal space, Mies likewise developed the clear-span which allowed larger buildings to be supported free of interior columns or bearing walls. S.R. Crown Hall (1956) at IIT is perhaps the epitome of his clear-span, universal spaces. Mies' skyscrapers were also developed so that the structural system is fully expressed, as can be seen at the apartment towers 860 and 880 Lake Shore Drive (1951). The Seagram Building (1958) in New York perhaps best expresses not only the structure but the purity of design characteristic of his works.

In addition to the IIT campus plan, Mies was involved with other large urban planning projects such as the Lafayette Park Housing Project (1955-56) in Detroit, the Chicago Federal Center (1959-64), and the Toronto Dominion Centre (1963-69). The Lafayette Park Housing Project was done in conjunction with his IIT colleagues, Ludwig Hilberseimer and Alfred Caldwell, in which they created a park like setting with low and high rise buildings, town houses, schools and community centers. Similar to IIT, the Housing Project replaced an old and decaying neighborhood with a new development evoking modernist social and architectural principles. The Chicago Federal Center consisted of courtrooms and offices held in two high-rise buildings and a low-rise building for the post office, all of which were organized around a plaza. The Toronto Dominion Centre closely resembles the layout and vocabulary of the Federal Center. In each of these large-scale urban planning projects, Mies never relinquishes his love of the grid and manipulation of space through an asymmetrical grouping of masses (buildings) and space (plazas) which he learned from the *de Stijl*.

Mies' influence on American architecture, and indeed world architecture, is undeniable. Although few American architects had heard of Mies, much less knew of his architecture before his arrival in 1937, his post-war work and his teaching at IIT probably had some of the greatest influences on architecture in the 1950s and '60s. The closest comparison to Mies' influence was Walter Gropius at Harvard during the same period. Mies however, was more successful and prolific as an architect and his work served as a direct influence in ways that Gropius did not. Many of Mies' students at IIT went on to successful careers in the booming post-war era, including many of his associates. One of the most successful firms of the 20<sup>th</sup> century, Skidmore, Owings and Merrill, was, after 1950, made up of architects either taught by Mies at IIT or greatly influenced by his work. SOM principle Gordon Bunshaft summed up Mies' influence, stating that "in broad terms, Mies was perfect for this country because this was a country of steel buildings. He showed how you could seem to express the material."<sup>20</sup> Mies' influence on Bunshaft is apparent in his designs for the Lever House in New York City (1952), the H.J. Heinz Company Vinegar Plant in Pittsburgh (1952) and the Union Carbide skyscraper in New York (1960).

In Chicago, the firm C.F. Murphy and Associates also practiced in the Miesian manner throughout the 1950s and 1960s. Their work includes the very Miesian Richard J. Daley Center (1965) and the McCormick Place

<sup>20</sup> Krinsky, Carol Herselle. Gordon Bunshaft of Skidmore Owings and Merrill. (New York: Architectural History Foundation, 1988) 23.



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convention hall designed by former Mies student and associate Gene Summers (1968-71). Eero Saarinen was greatly influenced by Mies, as seen in his design for the CBS Building in New York (1965) and most in his corporate campus plan and architecture for the General Motors Technical Plant in Warren, Michigan (NHL, 1948-56). The buildings at GM Tech slide past each other similar to those at IIT and the palate of expressed steel structure, brick and glass owes much to IIT's campus architecture, especially the Minerals and Metals Research Building.

Philip Johnson, one of the most influential architects in the 20<sup>th</sup> century, was an early disciple of Mies. He collaborated with Mies on the Seagram Building (1954-58) and the design for his own "Glass House" (1949) in New Caanen, Connecticut, was directly inspired by Mies' Farnsworth House (1946-50) design. Other untold numbers of less competent architects began building the stark, simplified designs inspired by Mies. According to Philip Johnson, "What makes Mies such a great influence, is that he is so easy to copy."<sup>21</sup> Businessmen and developers were easy converts, given that the apparent simplicity of Miesian architecture also meant lower costs. Few of these converts, however, could match the talent of Mies or his eye for proportion and detail.

### ***Miesian Theory & Practice of Architecture***

Much of Mies' architecture was based on principles acquired prior to his arrival at IIT. One is his appreciation of the craftsman. Mies' background as an apprentice under his father and experience with Bruno Paul developed his knowledge of construction which is evident in his attention to details and structural expressionism. Mies was certainly not alone in his emphasis on craftsmanship or displaying structure, which was already a hallmark of the earlier Arts & Crafts Movement, the Chicago School, and of course, the Bauhaus. The Bauhaus focus on both craftsmanship and technology were instilled in Mies early on and inspired not only his buildings, but also the way he taught. His curriculum for IIT closely follows the Bauhaus curriculum, for he had students began their education by first learning the basics of drafting and construction before undertaking any design projects. According to architectural historian Kevin Harrington, "Mies wanted to create a curriculum which would always yield excellent craftsmen and occasionally produce or encourage those with gifts to make the expression of technique an act of high art."<sup>22</sup> Although this may seem to be a quite logical method of teaching it was, in fact, quite different from the predominant Beaux Arts teaching style where students focused on the design *parti*, emphasizing the visual form rather than its function or structure. The Beaux Arts method had been the most common method of architectural education in the U.S. before World War II. After World War II, the Beaux Arts method was replaced by the Bauhaus style and other methods brought by Mies and other German immigrants, such as Walter Gropius at Harvard.

Mies' architecture was also indebted to the European Modernists who were preaching simplicity and purity of form, color and line, devoid of all extraneous matter. His involvement with figures within the modern movement, such as the German artist Hans Richter and Dutch artist Theo van Doesburg, as well as Mies' involvement with the Novembergruppe and the Bauhaus, indicate that he shared the values and ideas of the

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<sup>21</sup>Blake, Peter. *The Master Builders*. (New York: Alfred A. Knopf, 1960) 224.

<sup>22</sup>Harrington, Kevin. "Order, Space, Proportion -- Mies's Curriculum at IIT," *Mies van der Rohe: Architect as Educator*, ed. Rolf Achilles, Kevin Harrington and Charlotte Myhrum (Chicago: University of Chicago Press, 1986) 49.

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German *sachlich* and Dutch de Stijl movements. The German word *sachlich* has a few definitions but they all seem to be related. It is used as an adjective to describe something that is either factual, technical, or functional. This was expressed architecturally by stripping away all of the ornament and other such miscellaneous visual devices and abstracting the building down to its essential elements. The de Stijl movement likewise advocated an abstraction of form to pure geometric shapes and primary colors. The Barcelona Pavilion is perhaps the best example from Mies' early work where these modernist principles can be seen in the architecture. Set upon a travertine podium, the Barcelona Pavilion is a series of marble and glass wall planes loosely defining free-flowing spaces. These planes are all pure geometric shapes and consist of opulent materials free of any ornament. Simple, yet sophisticated, the Barcelona Pavilion has a classical dignity present in most Mies designs.

Related to the teachings of the German *sachlich* movement was the sense that the building must be truthful, not only in how it is constructed but also to the *Zeitgeist*, or spirit of the times. The concept of truthfulness in architecture and *zeitgeist* during the early 20<sup>th</sup> century led to the same thing, technology. The technological advancement of materials, fabrication and construction methods shaped both the physical world and social consciousness. This was the era of mass production, where machines quickly and efficiently turned out standardized commodities. Walter Gropius, director of the Bauhaus, soon realized that design had a role to play in technology and sought to incorporate new building materials and practices into the curriculum. One such example of how technological processes influenced the curriculum was that students were taught to design so that their object could be mass-produced. Mies evidently shared this emphasis on technology which was incorporated into both his teaching and practice. During an address to IIT in 1950, Mies clearly laid out the relationship between architecture, technology and how they represented the current era, when he said:

Architecture depends on its time. It is the crystallization of its inner structure, the slow unfolding of its form. That is the reason why technology and architecture are so closely related. Our real hope is that they grow together, that some day the one be the expression of the other. Only then will we have an architecture worthy of its name: Architecture as a true symbol of our time.<sup>23</sup>

The primary construction materials in America during the post-war years, steel and glass, as well as their construction processes, led Mies to the conclusion that they represented America's *zeitgeist*. To expose both the materials and construction processes were deemed truthful in that they not only showed how the building was constructed but represented an epoch.

Mies utilized IIT as a lab in which he could experiment with meshing technology and architecture. Characteristic of all Mies' IIT academic campus buildings was his insistence on exposing the structure which can be seen from his earliest building, the Minerals and Metals Research Building (1943) (Figure 19), to his masterpiece, Crown Hall (Figure 15). Perhaps the best example of his insistence on exposing the structure can be seen in the corner details at most of his classroom buildings (Figure 21 & 22). The IIT campus also

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<sup>23</sup> "Architecture and Technology," 30.

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expresses Mies' view of America's post-war *zeitgeist*, since it is largely constructed of the common American building materials: steel, glass and brick.

Another common aspect of Mies' architecture was his mastery of the relationship between spaces. The free-flowing spaces characteristic of such early buildings as the Barcelona Pavilion as well as his master plan for IIT campus, owe some acknowledgement to both Frank Lloyd Wright and the De Stijl movement. Wright was perhaps the first to start breaking down the formal boundaries of rooms and his work in the Wasmuth exhibition in 1911 would have certainly been known to Mies. A more abstract sequence of spaces, or in this case, relationship between voids and solids, can be seen in Theo Van Doesburg's paintings. Mies turned these two-dimensional paintings into three-dimensional buildings, eventually freeing the interior partitions from any connection to the ceiling. Such planning was unusual in the U.S. prior to Mies' arrival. Urban planning largely followed a symmetrical arrangement with hierarchy and enclosed spaces such as the town square or campus quadrangle.

***Mies' Plan for IIT***

When AIT merged with Lewis Institute to create Illinois Institute of Technology in 1940, the desire and need for a new campus was brought to the forefront. The opportunity for IIT was significant; this was its chance to remake the school's image and rise into the forefront of technological education. There was a problem, however, since the surrounding neighborhood was on the decline. Although the school had always been located within a working class neighborhood and was established to cater to the underprivileged, the declining condition of the neighborhood initially drove IIT to pursue other locations for its campus. Eventually school officials decided to stay in the area, providing an anchor for institutions like Michael Reese Hospital to follow suit. IIT's tear-down strategy became one that was all too common in blighted urban communities (Figure 32). Despite the social implications, this strategy was successful in that it allowed IIT to greatly expand its future campus. To plan the new Institute's campus was an unequalled opportunity. Much like Thomas Jefferson's design for the University of Virginia, it was an opportunity to completely design a large university campus as a unified whole, including the master plan and buildings. While other campuses initiated master plans, most worked within the framework of the existing campus and buildings.

Although Mies had been the head of IIT's School of Architecture since 1938, it was not immediately apparent that he would be given the opportunity to design the new campus. One architect, Alfred Alschuler, sat on IIT's Board of Trustees. Several others were intimately involved with the architecture department, including John A. Holabird, and Jerrold Loeb. In fact, Alschuler had already been working on a proposal, and his position with the school made it apparent that he would most likely obtain the assignment.

Alschuler's plan was typically Beaux-Arts oriented. Buildings were symmetrically and axially arranged and several were neo-classical in design (Figures 40 & 41). IIT President Henry Heald recognized the opportunity to have Mies design a campus that would provide instant reputation and national attention to the new Institute but was in no position to publicly reject Alschuler's proposal. According to Heald, Mies "would not have been

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selected by a committee of Trustees, and certainly not by a committee of the faculty.<sup>24</sup> That Mies got the commission, according to Heald, was "an act of God."<sup>25</sup> Mies, with input from Hilberseimer and Peterhans, worked on the plan covertly until Alschuler died around 1940, leaving an open door for Mies to receive not only the commission to design the campus plan, but later to build the early campus buildings.

A 1939 drawing (Figure 42) of the campus plan was based on the assumption that Dearborn and Federal Streets could be closed and a large, four-block area created for the heart of the campus. The southern and northern blocks were arranged symmetrically on the Thirty-third Street axis, with the entire site laid out as a twenty-four foot square grid with the buildings being variables of twelve feet high. This module was functional in that it would work with the measurement of classrooms, laboratories, as well as offices and governed not only the buildings and interior divisions but also the spaces between the buildings. Such a clear, rational approach appeared fitting for a technological school and allowed for easy expansion in the future. The buildings were typically rectangular, low-rise buildings with flat roofs and often raised above grade on pilotis with the auditoriums and staircases expressed externally as separate elements. Two large buildings (originally planned as the library and architecture school to the south and student union and administration building to the north) were planned for both the north and south blocks, being separated from each other by a large central open space. This open space, along with two other green spaces on State Street were treated as green spaces and planted with acacia trees. The large open space at the center of the campus creates an inward focus and was a direct response to the dilapidated neighborhood around it.

When the City rejected the closure of Dearborn Street, Mies refined the plan through numerous permutations, but kept the module and basic organization of space. By 1941, the basic arrangement had been determined (Figure 8). Thirty-third Street remained as an axis about which the blocks immediately to the north and south were symmetrical. The grid was kept and all buildings were reduced to simple geometric shapes, eliminating the external auditorium and staircases elements as well as the pilotis. The central open space was changed to a series of interconnecting spaces reflecting Mies' de Stijl influence. The buildings slide past the end of one another in plan similar to the interplay between solids and voids that slide past or into one another in a Theo van Doesburg painting. Open spaces were allowed to visually constrict and expand around and between the buildings creating a sense of movement through the campus. Renderings of the plan show buildings constructed of steel frame with extensive glazing and brick infill, materials that were not only cost effective but appropriate for the modern building (Figure 43).

Mies' planning and proposed architecture were new and exciting, offering a distinctive break with the Collegiate Gothic or Classical styles on most American campuses. Here was an opportunity for a modernist architect to design not only the campus plan but also its buildings. Frank Lloyd Wright was accomplishing a similar feat at Florida Southern College in Lakeland, Florida. Unlike Florida Southern College though, AIT/IIT was in an urban environment and sought an urban solution. Mies' plan and architecture offered a new architectural solution to the dense surrounding neighborhood with its hodgepodge of late 19<sup>th</sup> century architectural styles.

<sup>24</sup> Heald, Henry T. "Mies van der Rohe at IIT." *Four Great Makers of Modern Architecture* (New York: Da Capo Press, 1970) 107.

<sup>25</sup> *Ibid.*, 107.

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Eero Saarinen perhaps summed up both Mies' vision for the campus as well as the school officials hope in his dedication speech for Crown Hall.

This same bold spirit that created Chicago architectural tradition motivated the creation of this campus. Twenty years ago this was a slum. This transformation could have happened nowhere else. Not because there aren't slums in many other cities. They do exist in minor form in other places. But because Chicago is a place of courageous thinking, a slum gives way to a brand new campus – crisp and clean and beautiful and harmonious – a model of a total environment...<sup>26</sup>

The IIT campus set the precedent for the modernist campus. Most college or university campuses were located in rural environments in which the buildings were laid out on the "academic village" model, created by Thomas Jefferson at the University of Virginia, or similarly, grouped around a quadrangle like the Stanford Quad at Stanford University in Palo Alto, California. Campus architecture was based on historical styles such as the Georgian at University of Illinois at Urbana-Champaign, the Mediteranian style used at the University of Texas at Austin and the Collegiate Gothic model, such as the University of Chicago. Because most major U.S. campuses had already been established by 1900, master planners between 1900 and 1949 were forced to work within the confines of existing buildings and site arrangements. The opportunity for one architect to completely lay out the campus master plan and subsequently either design or influence the design of the buildings, such as with Jefferson's University of Virginia, was rare indeed.

When Mies received the commission to plan the IIT campus and design its buildings, there were few precedents and none which were completed based on modernist principles. In 1938, Frank Lloyd Wright designed and planned the campus and buildings at Florida Southern College in Lakeland, but the bucolic location and Wrightian style contrasted greatly with Mies' urban campus design. Mies therefore broke new ground in America through his introduction of modernist planning and architectural concepts to campus design. The IIT campus was in an urban environment and followed neither the "academic village" nor the quadrangle model (Figure 44). The asymmetrical relationship between buildings and the flow of space around buildings was as unique as Mies' austere buildings which seemed better suited for an industrial complex than a college campus. The IIT campus plan was reviewed in the contemporary architectural media and would have been well known amongst architects and administrators. IIT paved the way for later modernist campuses such as Philip Johnson's plan and design for the University of St. Thomas in Houston, Texas, as well as SOM's plan and designs, principally directed by Walter Netsch, for the Air Force Academy in Colorado Springs (National Historic Landmark) and the University of Illinois at Chicago. In all three campuses, the influence of IIT can be immediately felt in the spartan vocabulary and expression, such as at the University of St. Thomas, or the reliance on the grid plan at Colorado Springs.

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<sup>26</sup> *The Heritage of Illinois Institute of Technology*, 78.

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***Mies' Architecture at IIT***

The first new campus buildings were built during the war and were mostly research facilities, such as the Minerals and Metals Research Building (1943) and Engineering Research Building (1945) (Figures 19 & 20). Interestingly enough, Mies' first building on campus deviated from his twenty-four foot grid by a quarter of an inch. This slight deviation apparently resulted from Mies trying to accommodate the standard unit dimension of a brick, which was at that time his building material of choice. The major building effort did not begin however until 1945, at which time increased enrollment due to returning soldiers utilizing the GI Bill propelled the construction of about two buildings per year.<sup>27</sup> Some of these buildings include the Boiler and Generating Plant (1945-50), Wishnick Hall (1945-6), Perstein Hall (1945-6) and Alumni Memorial Hall (1945-6) (Figures 10-13). Mies' buildings typically followed the campus plan in footprint and design and due to their modularity, use of standard construction materials and techniques, they were built at the comparably low average of \$10 per square foot.<sup>28</sup> The buildings demonstrate Mies' modernist aesthetic being pure geometric shapes, structurally expressive, functional, and containing materials appropriate for modern buildings in the modern American city.

Except for the Generating Plant, the early buildings were mostly located north of Thirty-third Street. This was because existing buildings south of Thirty-third blocked expansion in those blocks. Although a number of these buildings were part of IIT's facilities, such as Main Building, others included privately owned structures seen by the IIT administration as detrimental to the school's image. One of those buildings, the Mecca Apartments, was an early urban apartment building. Acclaimed for its 1891 design using plenty of natural light and ventilation, the Mecca had devolved into an overcrowded tenement by the late-1930s. Despite this decline, or perhaps because of it, the Mecca inspired several blues songs by local musicians along the nearby "Stroll," including the popular "Mecca Flat Blues" (Figure 45)<sup>29</sup>

After 1950, IIT began to buy and clear the area south of Thirty-third Street. Despite years of tenant resistance, the Mecca was vacated and demolished in 1952. Its site would later become that of Crown Hall. The Armour Mission was demolished after 1955; the remaining Armour Flats were demolished after 1967. In 1956, Siegal Hall, the mirror to Wishnick Hall, was built just to the south of Thirty-third.

Although most of the campus buildings are similar in vocabulary, Mies did differentiate how he treated the academic buildings versus how he treated research/laboratory buildings for the ARF such as the Engineering Research Building. While both buildings have brick infill, the academic buildings are supported by structural steel which Mies took pains to express on the exterior. The ARF research/laboratory buildings on the other hand are constructed of pre-cast concrete with brick infill. These changes are indicative of the different requirements for the different buildings and were the two basic architectural models on the campus until the construction of Crown Hall in 1956.

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<sup>27</sup> Achilles, 4.

<sup>28</sup> *Ibid.*, 4.

<sup>29</sup> Bluestone, Daniel. "Chicago's Mecca Flat Blues," *Journal of the Society of Architectural Historians*, vol. 57, no. 4 (December 1998), 392.

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Ironically, Crown Hall (1950-56) was about the last of Mies' buildings to be completed on campus (Figure 15). Easily his most significant building on campus, Crown Hall epitomizes the clear-span, universal space building. Mies' close attention to detail and proportions created a building that resembles the classical dignity found in Shinkle's designs, such as the Altes Museum (1823-30). With Crown Hall, Mies chose to deviate significantly from the grid. As Mies himself explained, this deviation represented a hierarchy of order in which Crown Hall was elevated beyond the practical, which represented the majority of his buildings on campus, to the spiritual realm. The spiritual realm, unlike the practical realm of science and engineering, is represented by architecture and design which elevates the technology and research to the realm of art.

By the time he retired from academia in 1958, Mies had completed nineteen buildings at IIT, fourteen of which were for the academic campus, making it one of the largest concentration of Mies buildings in the world. Except for minor adjustments, the built campus in 1958 closely followed Mies' original 1941 plan.

### **OTHER CAMPUS ARCHITECTS**

In 1958 Mies resigned from his position as director of the architectural department at IIT, although it is not clear if he also resigned as campus architect. While there is much debate over the circumstances of his replacement at IIT, it should be noted that Mies was 72 years old and in progressively failing health at the time. His office was also very busy on other prominent projects, and it was apparently felt that he was not giving adequate attention to IIT's needs. In any event, Mies' retirement from IIT in 1958 was the end of his formal role in the development of the campus and the realization of its plan.

Development of the academic campus after 1958 generally followed Mies' 1941 plan (Figure 47). Several exceptions should be noted however. Main Building and Machinery Hall were never replaced as Mies proposed and Main Building remains one of the more recognized buildings on campus, especially from the Dan Ryan Expressway and is now a City of Chicago Landmark. Furthermore, no building has ever been built at the southwest corner of 33rd and State Streets, as planned. This site is the open space directly north of Crown Hall and has recently been landscaped as part of the campus master landscaping plan. The campus north of 32<sup>nd</sup> Street became more developed than Mies originally envisioned. The athletic fields were moved north of 31<sup>st</sup> Street and buildings for the AAR were added at the northwest part of the campus. In the 1960s, several Mies inspired academic buildings were added at the northeast part of the campus. The arrangement for all of these buildings was similar to that used by Mies in his original master plan.

Although the significance of the campus plan and subsequent buildings are undeniably the result of Mies' influence, there were other campus architects before, during and after Mies that have left their own mark on the present day campus.

### ***Patton & Fisher***

The firm of Patton & Fisher (& Miller after 1898) designed the earliest buildings for AIT, the Main building (1891-93), Machinery Hall (1901) and the Maintenance Garage (1901) (Figures 3-7). Normand S. Patton

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(1852-1915) was educated on the east coast and came to Chicago shortly after the fire in 1871 to take advantage of the numerous opportunities offered to architects. Patton worked either alone or with his early partner C.E. Randall until about 1885 when he formed a partnership with Reynolds Fisher. In 1898 Grant Miller became a third partner in the firm until 1901 when it became just Patton and Miller after Fisher resigned and moved to Seattle. Not much is known about Fisher, but with respect to Miller, we do know that he was from Rockford, Illinois, and studied architecture at the University of Illinois at Urbana-Champaign. Miller also went on to earn a degree in civil engineering from Cornell University. The firm Patton and Miller remained in existence until 1912.

The work of Patton & Fisher was typical of much late 19<sup>th</sup> century architecture in its historic eclecticism. Two of the firm's most noteworthy Chicago buildings are the Chicago Academy of Sciences (1893) and the Belmonte Flats (1893), but they were also prominent in Oak Park, Illinois, designing many residences in addition to the Pilgrim Congregational Church (1889). In addition to their work in the Chicagoland area, Patton's various firms were also well known for their school and college buildings and libraries, such as the Gardner Library in Quincy, Illinois (1888).

**Alfred Caldwell**

Alfred Caldwell was born in 1903 in St. Louis, Missouri. At an early age his family moved to Chicago, where he spent the majority of his school years. It was at Lake View High School, on the north side of the city, that his love for plants was nurtured under botanist Herman Silas Pepon. Upon graduation from high school, Caldwell decided to study landscape architecture at the University of Illinois at Urbana-Champaign, but never finished. After dropping out of the University he met the famed Prairie School landscape architect, Jens Jensen, who took him under his wings as a landscape assistant. The time spent with Jensen proved to be inspirational and left an indelible mark upon his career. Frank Lloyd Wright soon became interested in this young landscape architect and extended an invitation to Caldwell to study at Taliesin. Caldwell, despite being heavily influenced by Wright, turned down his offer. Between 1931-33, Caldwell ran his own practice but subsequently gave it up when he was hired as the Superintendent of Parks in Dubuque, Iowa. He was fired in 1936, supposedly for giving "too much attention to detail," but found another position as the park designer for the Chicago Park District.<sup>30</sup> These years turned out to be extremely fruitful as Caldwell masterfully applied the teachings of Jensen, along with his own personal style, to some of Chicago's most prominent parks. His work for the Park district continued until 1939, when his career took another shift.

One summer afternoon in 1938, Caldwell was planting flowers in Lincoln Park when he ran across three "foreign looking" men who seemed to admire his work.<sup>31</sup> These men were none other than Mies van der Rohe, Ludwig Hilberseimer, and Walter Peterhans, who had recently arrived in Chicago to teach at the Armour Institute of Technology (AIT). Caldwell was later introduced to Mies through a design class he was taking at

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<sup>30</sup> Domer, Dennis. "Alfred Caldwell," *Catalyst* vol. 8 no. 2 (1998) 8.

<sup>31</sup> Domer, Dennis. *Alfred Caldwell: The Life and Work of a Prairie School Landscape Architect* (Baltimore: Johns Hopkins University Press, 1997) 29.



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the Art Institute in preparation for the Illinois architecture examination. Caldwell's design for a "medium sized house" impressed Mies, who asked Caldwell to consider studying with Hilberseimer and Peterhans.

While still at the Park District, Caldwell's exceptional drawing skills and poetic speaking style were fully utilized by Mies and Hilberseimer. Hilberseimer repeatedly used Caldwell to illustrate his views upon urban planning, often without Caldwell receiving either pay or credit. Mies and Hilberseimer also admired his speechmaking skills, especially since they had little confidence in their own ability to give a speech in English. Over the course of the years Caldwell delivered many speeches for these men, giving them with a sense of flare and showmanship that left even Mies clapping at the end.

During World War II, Caldwell served in the military and became a government civil engineer. In 1945, Caldwell was out of the service and accepted an offer from Mies for a teaching position at Illinois Institute of Technology, along with the added task of being the landscape architect for the growing school. Caldwell was to head the program for second and third year architecture construction classes. These classes were seen as the foundation of Mies' curriculum, for it was here that the students learned in detail about materials and how to best make use of them in a building. Caldwell's devotion as a teacher and charismatic personality appealed to the heart of the students, many of whom left his presence feeling greatly inspired. His rapport with the other professors was not as good. Many of them thought the students were spending too much time on his classes and not enough on theirs, and some were jealous of Caldwell's energetic personality. Despite these conflicts, and Caldwell's tendency to repeatedly offer his resignation at the slightest provocation, Mies remained a steadfast supporter. Caldwell permanently resigned his position at IIT in 1958 following Mies' resignation from the faculty and his subsequent dismissal as IIT architect.

***Skidmore, Owings & Merrill (SOM)***

Skidmore, Owings and Merrill (SOM) was founded in 1936 in New York City by Louis Skidmore, Nathaniel Alexander Owings, and John Merrill. A talented staff and their early espousal of the International Style positioned SOM to become the leading proponents of modern architecture in the United States for most of the twentieth century. Many famous architects have been attracted to or trained at SOM, including Gordon Bunshaft, Myron Goldsmith, Bruce Graham and Walter Netsch. By the 1950s, SOM's Chicago office was particularly active and attracted many former Mies students and employees as well as those just influenced by Mies, such as former SOM partners Myron Goldsmith, Bill Dunlap, and John Weese.

SOM became the unofficial campus architect following Mies' resignation in 1958 and with their acceptance of the commissions to design two prominently placed buildings on the campus, Grover M. Hermann Hall (1962) and Paul V. Galvin Library (1962). Although their reputation alone would have qualified SOM for the position, it certainly did not hurt that their partner Bill Hartmann was also on the board of IIT. SOM had designed student dormitories on the east side of campus as early as 1948, but it was after 1958 when they became the predominate architects on campus until 1971, designing a total of five buildings on the academic portion of the campus. During this period, there were two architects, in particular, who were directly involved with the design of the campus buildings, Walter Netsch and Myron Goldsmith.

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Walter Netsch was born in Chicago in 1920 and studied architecture at the Massachusetts Institute of Technology. After working for a small residential architect in the suburbs of Chicago he joined SOM's San Francisco office in 1947. In 1951 he was transferred to the Chicago office where he received some of his most famous commissions: the U.S. Air Force Academy in Colorado Springs (1956-63), the University of Illinois at Chicago (completed 1965), and, together with Bruce Graham, the Inland Steel Building in Chicago (1956-57). As a self-proclaimed "non-Miesian," it might be considered odd that Netsch was given the responsibility for designing two prominent buildings at IIT immediately after Mies' resignation.<sup>32</sup> According to Netsch, Owings decided that no former Mies student would get the job since, Owings claimed, SOM was equal in design to Mies and therefore beyond simply completing Mies' former designs.<sup>33</sup> Myron Goldsmith offered another explanation however, stating that Netsch was given the job because most of the other designers with ties to Mies were guilt ridden about SOM receiving the commission over Mies.<sup>34</sup> Netsch claimed to have designed in the "spirit of Mies" with his designs for Grover M. Hermann Hall (1962) and Paul V. Galvin Library (1962) (Figures 16 & 33). A design for a Library and Administration Building had been previously completed by Mies but was not used as the prototype for the Galvin Library. Netsch instead turned to Crown Hall as his model for Galvin Library and Hermann Hall. Although similar in vocabulary, Netsch's designs lack the structural clarity of Mies' masterpiece. At Crown Hall, Mies had the roof girders rest on the exterior columns which allowed for a clear-span structure below. Netsch borrowed the roof girders and gave the impression of a clear span structure but rested them on interior columns which did not always align with the exterior columns. What resulted was a confusing and aesthetically clumsy relationship as large roof girders are positioned directly over the entrance doors.

Myron Goldsmith, unlike Netsch, was a direct product of AIT/IIT, studying under Mies while in undergraduate and graduate school. He also worked in Mies' office. Goldsmith was born in Chicago in 1918 and received his bachelor's degree in architecture from AIT in 1939. In 1944 he joined the Army Corps of Engineers where he received training in engineering and became intimately familiar with the construction process. After the war, he returned to Chicago to work in Mies' office and pursue a Master's degree from IIT. Goldsmith received a Fulbright grant in 1953 where he studied with Pier Luigi Nervi in Rome. Upon his return to the U.S., Goldsmith was hired by SOM to work in its San Francisco office. While in San Francisco, Goldsmith designed his famous United Airlines Hangar and Flight Kitchen at the San Francisco International Airport (1958) and the McMath-Pierce Solar Telescope at the Kitt Peak Observatory in Arizona (1962). In 1958 he was transferred to the Chicago office. Goldsmith designed three buildings for IIT: the Life Sciences Building (1966) (Figure 35), the Engineering I Building (1968) (Figure 17) and the Harold Leonard Stuart Building (1971) (Figure 36). In all three building designs, Goldsmith carefully imitates Mies' vocabulary for academic buildings, such as Perstein and Alumni Hall. In an interview with Betty Blum for the Chicago Architects Oral History Project, Goldsmith explained his design decision this way:

<sup>32</sup> Netsch, Walter. "Interviews with Chicago Architects." Interviewed by Betty J. Blum, May 8 and June 5-28, 1995, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois, 106.

<sup>33</sup> *Ibid.*, 109.

<sup>34</sup> Goldsmith, Myron. "Interviews with Chicago Architects." Interviewed by Betty J. Blum, July 25 and 26, September 7, and October 5, 1986, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois, 118.

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I decided to stay with the old appearance of things, the old system, for a couple of reasons: I seemed not to have been able to come up with anything better or as good; and the other thing was that we had no guarantee that after doing a building we would be invited back to do another, that they wouldn't go to another architect. It was a building-by-building agreement, one at a time. I felt that once you broke down the discipline of the campus, the look of it, and opened it up to something different, then some future architect, not us, would feel absolutely free to do anything.<sup>35</sup>

***Schmidt, Garden & Erikson (SGE)***

Schmidt, Garden and Erikson (SGE) designed four complete buildings at IIT along with one addition, for ARF/IITRI and IGT. The partnership dates from 1925, when Edgar Martin was replaced by longtime employee Carl A. Erikson. The relationship between the two original partners, however, dates back much further. Richard Ernest Schmidt was born in Bavaria and trained as an architect at the Massachusetts Institute of Technology. He invited Hugh Mackie Gordon Garden to go into partnership with him as the chief designer. By this time Garden had already worked for such notable Chicago architects as Shepley, Rutan and Coolidge, Howard Van Doren Shaw, Henry Ives Cobb, and Frank Lloyd Wright. He joined the Chicago Architectural Club in 1892 where he associated with the Steinway Hall architects who developed the Prairie School of Architecture. The firm Schmidt and Garden concentrated primarily on commercial buildings, public park buildings and hospitals. Their work included such fine buildings as the original building of Michael Reese Hospital (1905) and the Administration (1886) and Powerhouse (1906) buildings of the Schoenhofen Brewery, all of which are in Chicago. Edgar Martin joined the firm in 1906 and added his skills as a structural engineer. Together with Martin, the firm produced two other notable Chicago structures, the Humboldt Park Boathouse Pavilion (1906-07) and the Montgomery Ward warehouse building (1907-08).

The Prairie School-influenced style of SGE, primarily due to Hugh Garden, is absent from their ARF/IITRI research/laboratory buildings. SGE designed and built three buildings for the ARF/IITRI – the Chemical Research Building (1960) (Figure 18), Life Sciences Research Building addition (1961) (Figure 25), IIT Research Institute Tower (1964) (Figure 18) – and two for IGT, Power Plant (1964) and Central Building (1965) (Figure 14). Either at the direction of ARF/IITRI or out of respect for Mies, SGE closely followed the architectural prototype Mies already established for research/laboratory buildings on the campus, which was a reinforced concrete structure with brick infill and clerestory windows within each bay. Their willingness to design in this style may also reflect a change within the firm. Although their work with ARF/IITRI came after Mies' resignation, SGE was working with Mies during the same period as associate architects on his Chicago Federal Center (1959-64). By the late 1950s, Hugh Garden would have been in his eighties and probably no longer influenced the stylistic direction of the firm. Besides Garden's age, the predominance of the International Style in America probably influenced the designers who worked on the buildings at IIT.

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<sup>35</sup> *Ibid.*, 119.

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***Associate Architects***

During most of Mies' tenure at IIT his architectural practice was relatively small, which necessitated the use of associate architects to do much of the drawing. Holabird & Root was used on many of Mies' first campus buildings, such as Minerals Metals Research Building (1943), and Engineering Research Building and Alumni Hall (1946). John A. Holabird, one of the founding partners of Holabird & Root, was instrumental in convincing Mies to come to IIT, which may explain Mies' early reliance on Holabird's firm.

Another often used associate architectural firm was Alschuler & Sincere/Frideman, Alschuler and Sincere. The firm was an established one in the city, designing many prominent buildings such as 360 N. Michigan Avenue Building (1923). Alfred Alschuler, like Holabird, was another IIT Board member, which may also account for his work with Mies. The relationship between Mies and the firm appears to have been successful for they would work on six IIT buildings besides doing several of his high-rise apartment buildings, such as Esplanade Apartments I (1956) and the Commonwealth Promenade Apartments (1953-56), both in Chicago.

PACE architects (an acronym standing for planners, architects and consulting engineers) was founded by ex-SOM and Holabird & Root employee, Charles "Skip" Booher Genter in 1946. Genter was a personal friend of Mies and PACE worked on Crown Hall (1956) and Lewis Building (1957). Like Alschuler & Sincere/Frideman, Alschuler & Sincere, PACE was also the associate architect on some of Mies' important Chicago high-rise residential buildings like the Promontory Park Apartments (1946-49) and the 860-880 Lake Shore Drive Apartments (1948-51), both of which were constructed prior to PACE's work at IIT.

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## BIBLIOGRAPHY

### BIBLIOGRAPHIES

Spaeth, David A. *Ludwig Mies van der Rohe: An Annotated Bibliography and Chronology*. New York: Garland Publishing, Inc., 1979.

### BOOKS / CATALOGUES

Achilles, Rolf and Charlotte Myhrum. *Guide to the Campus of the Illinois Institute of Technology*. Chicago: IIT, 1986.

Blake, Peter. *The Master Builders*. New York: Alfred A. Knopf, 1960.

Blaser, Werner. *Mies van der Rohe*. Berlin: Birkhauser Verlag Basel, 1997.

Blaser, Werner. *Mies van der Rohe: Continuing the Chicago School of Architecture*. Stuttgart: Birkhauser Verlag Basel, 1981.

Blaser, Werner. *Mies van der Rohe: IIT Campus*. Berlin: Birkhauser Verlag Basel, 2002.

Blaser, Werner. *Mies van der Rohe: Less is More*. Zurich: Waser, 1986.

Blaser, Werner. *Mies van der Rohe: The Art of Structure*. New York: Watson-Guption Publications, 1993.

Carter, Peter. *Mies van der Rohe at Work*. London: Pall Mall Press, 1974; reprint, London: Phaidon Press Limited, 1999.

Condit, Carl W. *Chicago 1930-70: Building, Planning, and Urban Technology*. Chicago: University of Chicago Press, 1974.

*Converging Visions: The Making of a University*. Chicago: IIT Press, 1991.

*Dedication Ceremonies: S.R. Crown Hall, Dedicated to the Advancement of Architecture, Design, and City and Regional Planning*. Chicago: IIT, 1956.

Domer, Dennis, ed. *Alfred Caldwell: The Life and Work of a Prairie School Landscape Architect*. Baltimore: Johns Hopkins University Press, 1997.

Drexler, Arthur. *Ludwig Mies van der Rohe*. New York: George Braziller, Inc., 1960.

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- Harrington, Kevin. "Order, Space, Proportion – Mies's Curriculum at IIT." In *Mies van der Rohe: Architect as Educator*. ed. Rolf Achilles, Kevin Harrington and Charlotte Myhrum, Chicago: University of Chicago Press, 1986.
- Heald, Henry. "Mies van der Rohe at I.I.T." In *Four Great Makers of Modern Architecture*. New York: Da Capo Press, 1970.
- Hilberseimer, Ludwig. *Contemporary Architecture: Its Roots and Trends*. Chicago: Paul Theobald and Company, 1964.
- Hilberseimer, Ludwig. *Mies van der Rohe*. Chicago: Paul Theobald and Company, 1956.
- Holt, Glen E. and Dominic A. Pacyga. *Chicago: A Historical Guide to the Neighborhoods*. Chicago: Chicago Historical Society, 1979.
- Illinois Institute of Technology: Its Purpose and Its History*. Chicago: IIT, 1970.
- Illinois Institute of Technology: Main Campus Guide*. Chicago: IIT, 1996.
- Johnson, Philip C. *Mies van der Rohe*. New York: Museum of Modern Art, 1978.
- Lambert, Phyllis. *Mies in America*. Montreal: Canadian Centre for Architecture, 2001.
- Macaulay, Irene. *The Heritage of Illinois Institute of Technology*. Chicago: IIT, 1978.
- Mahony, Olivia. *Images of America. Douglas/Grand Boulevard. A Chicago Neighborhood*. Chicago: Arcadia Publishing, 2001.
- Mies van der Rohe*. Library of Contemporary Architects, New York: Simon and Schuster, 1970.
- Mies van der Rohe, European Works*. New York: St. Martin's Press, 1996.
- Pommer, Richard, David Spaeth and Kevin Harrington. *In the Shadow of Mies: Ludwig Hilberseimer Architect, Educator, and Urban Planner*. Chicago: Art Institute of Chicago (in association with Rizzoli International Publications), 1988.
- Schulze, Franz. *Mies van der Rohe: A Critical Biography*. Chicago: University of Chicago Press, 1985.
- Schulze, Franz, ed. *The Mies van der Rohe Archive*. New York: Garland Publishing, Inc. 1992.
- Sinkevitch, Alice, ed. *AIA Guide to Chicago*. New York: Harcourt Brace & Company, 1993.
- Spaeth, David. *Mies van der Rohe*. New York: Rizzoli International Publications, Inc., 1985.
- Speyer, James A. *Mies van der Rohe*. Chicago: Art Institute of Chicago, 1968.

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**Illinois Institute of Technology, Cook County, Illinois**

---

Talley, Laura E. *IIT Research Institute: A Retrospective, Spanning the Years of 1936-2002*. Chicago: IIT Research Institute, 2002.

*Technology Center Today and Tomorrow. A Building and Expansion Program to Transform Today's Outgrown Campus of Illinois Institute of Technology into a Modern Center of Technological Education and Research*. Chicago: IIT., n.d.

Waldheim, Charles. *Hilberseimer/Mies van der Rohe. Lafayette Park Detroit*. New York: Prestel Publishing Ltd., 2004.

Zukowsky, John. *Mies Reconsidered: His Career, Legacy, and Disciples*. Chicago: Art Institute of Chicago in association with Rizzoli International Publications, Inc., 1986.

**JOURNALS / MAGAZINES**

Biemiller, Lawrence. "On Campus with 20 Mies Buildings, One Masterpiece." *Chronicle of Higher Education* (1986).

Bluestone, Daniel. "Chicago's Mecca Flat Blues." *Journal of the Society of Architectural Historians* vol. 57 no. 4 (December 1998): 382-403.

Domer, Dennis. "Alfred Caldwell." *Catalyst* vol. 8 no. 2 (1998): 8.

Furlong, William Barry. "The Expanding World of IIT." *Chicago* (Winter 1967): 56-63.

"Illinois Tech Re-plans 16 City Blocks." *Architectural Forum* no. 85 (September 1946): 102-3.

Nelson, George. "Buildings to Come." *Architectural Forum* no. 76 (February 1942): 14.

**REPORTS / STUDIES/PRESS RELEASES**

Michael Van Valkenburgh Associates, Inc. in association with Peter Lindsay Schaudt Landscape Architecture, Inc. "IIT in the Landscape: 1999 Illinois Institute of Technology West Campus Landscape Master Plan. After Mies and Caldwell: A Report to the Mies Committee," 1999.

McCluer. "S.R. Crown Hall: Historic Structures Report," October, 2000.

Skidmore, Owings, and Merrill. "IIT Campus Master Plan," n.d.

Willamette Management Associates, Media Relations: Press Releases (January 2003).

**SPEECHES / INTERVIEWS / ORAL HISTORIES**

Caldwell, Alfred. "Interviews with Chicago Architects." Interviewed by Betty J. Blum, 28 and 31 February 1987, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois

Danforth, George. "Interviews with Chicago Architects." Interviewed by Pauline Saliga, 9, 16, NPS Form 10-900-a

OMB No. 1024-0018

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**Illinois Institute of Technology, Cook County, Illinois**

---

- and 23 August 1986, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois.
- Duckett, Edward A. and Joseph Y. Fujikawa. "Impressions of Mies: An Interview on Mies van der Rohe, His Early Chicago Years 1938-58." Interviewed by William S. Shell, 1 November 1988.
- Genther, Charles Booher. "Interviews with Chicago Architects." . Interviewed by Betty J. Blum, September 3, 1983, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois.
- Goldsmith, Myron. "Interviews with Chicago Architects." . Interviewed by Betty J. Blum, July 25 and 26, September 7, and October 5, 1986, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois.
- Grunsfeld, Ernest Alton III. "Interviews with Chicago Architects." . Interviewed by Annemarie van Roessel, January 15, 16, 19, 20, 22, 26, and 27, 2004, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois.
- Holabird, John Augur. "Interviews with Chicago Architects." . Interviewed by Susan S. Benjamin, October 29, 30, November 3, 6, 12, 16, and December 3, 1992, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois.
- Mies van der Rohe, Ludwig. "Architecture and Technology." Published in *Arts and Architecture*, 67, no. 10 (1950): 30.
- Mies van der Rohe, Ludwig. Speech delivered at an AIA awards ceremony in San Francisco, California (where he received the Gold Medal Award), 21 April 1960. Illinois Institute of Technology Architecture Library, Chicago.
- Netsch, Walter. "Interviews with Chicago Architects." . Interviewed by Betty J. Blum, May 8 and June 5-28, 1995, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois.
- Saarinen, Eero. Speech given at the dedication of S.R. Crown Hall, 30 April 1956. Chicago Landmarks Commission Files.
- Speyer, James A. "Interviews with Chicago Architects." . Interviewed by Pauline Saliga, June 11, 12, 13, 18, 19, 1986, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois.
- Vinci, John. "Interviews with Chicago Architects." . Interviewed by Betty J. Blum, January 16, 17, 18, and 21, 2002, Art Institute of Chicago's Burnham Library Collection, Chicago, Illinois.



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Section 10 Page 43

**Illinois Institute of Technology, Cook County, Illinois**

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**GEOGRAPHICAL DATA**

**Verbal Boundary Description**

The IIT Academic Campus is located on the near-south side of Chicago in the Douglas Neighborhood. Its boundaries are as follows: the Dan Ryan Expressway and Rock Island District rail road tracks to the west, State Street to the east, 35<sup>th</sup> Street to the south and just north of 31<sup>st</sup> Street to include the Harold Leonard Stuart building but not the athletic field. The campus is shown as comprising the area within the dashed line on the accompanying drawing entitled "Academic Campus Plan."

**Boundary Justification**

The boundaries correspond to the 1940 Mies master plan, with the exception of the Harold Leonard Stuart building that lies to the north of 31<sup>st</sup> Street. The Stuart Building was included given its similarity to both Mies' academic buildings and Goldsmith's relationship to Mies. The residential campus east of State Street is not included in the nomination of the IIT Academic Campus Historic District. This portion of the campus is visually and physically separated from the Academic Campus and was never planned by Mies. Although Mies did design five buildings on the east campus, the overall development was haphazard and does not relate strongly to the planning principles of the Academic Campus.



Figure 1. Looking west down 33rd Street (1909). Main Building is visible in the background to the left.



Figure 2. Looking north down Federal Street during 1909 fire at Main Building. Machinery Hall is visible in the background.

**Illinois Institute of Technology, Cook County, Illinois**

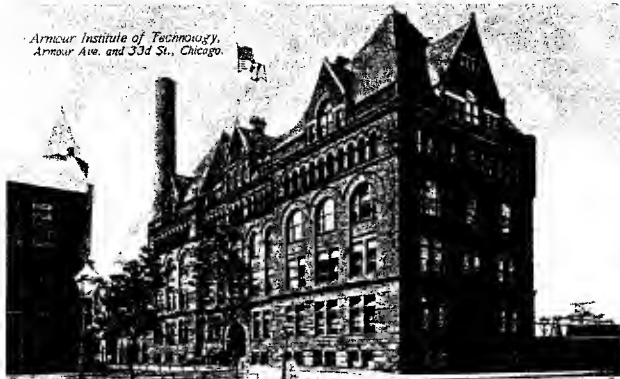


Figure 3. Historic image from postcard of Main Building (c. early 1900s)



Figure 4. Main Building

**Illinois Institute of Technology, Cook County, Illinois**



Figure 5. Historic image from postcard of Machinery Hall (c. 1901)

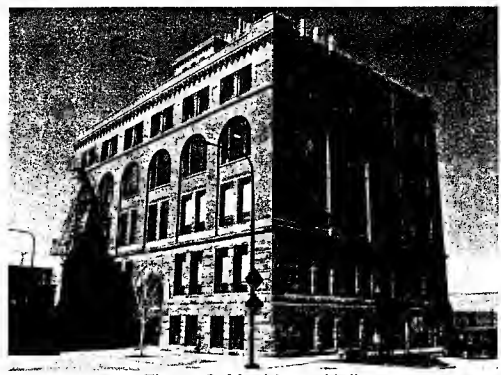


Figure 6. Machinery Hall.



Figure 7. Maintenance Garage.

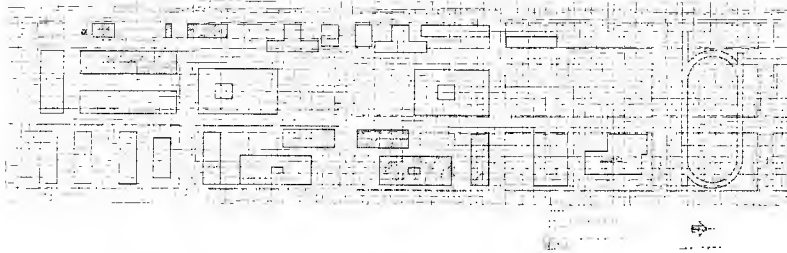


Figure 8. Campus plan (c. 1940).



Figure 9. Looking south down Dearborn St. toward Wishnick Hall (right) and Perlstein Hall (middle). Photo showing asymmetrical relationship of buildings (c. 1950).

**Illinois Institute of Technology, Cook County, Illinois**

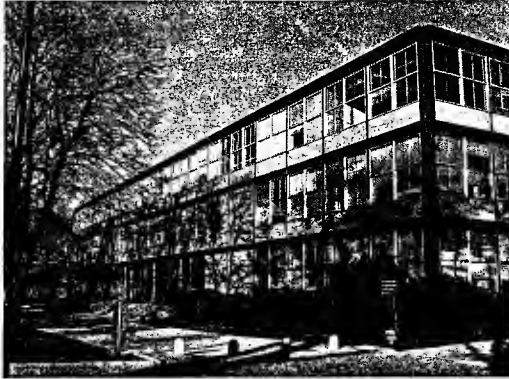


Figure 10. Wishnick Hall

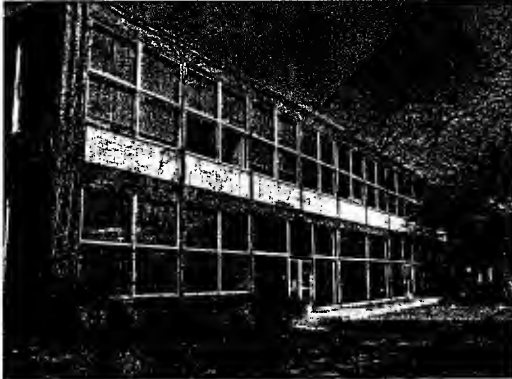


Figure 11. Perlstein Hall.

**Illinois Institute of Technology, Cook County, Illinois**

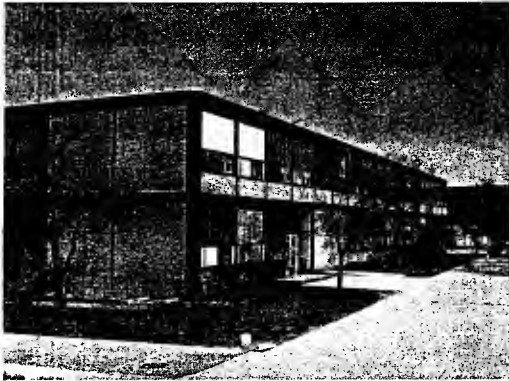


Figure 12. Alumni Memorial Hall.



Figure 13. Boiler and Steam Generating Plant.

**Illinois Institute of Technology, Cook County, Illinois**



Figure 14. North Building (in foreground), Central Building and IIT Research Tower in background.



Figure 15. S. R. Crown Hall.

**Illinois Institute of Technology, Cook County, Illinois**





Figure 16. Paul V. Galvin Library.



Figure 17. Engineering I Building



Figure 18. Chemical Research Building with  
IIT Research Tower in background.  
**Illinois Institute of Technology, Cook County, Illinois**



Figure 19. Minerals & Metals Research Building



Figure 20. Engineering Research Building

**Illinois Institute of Technology, Cook County, Illinois**

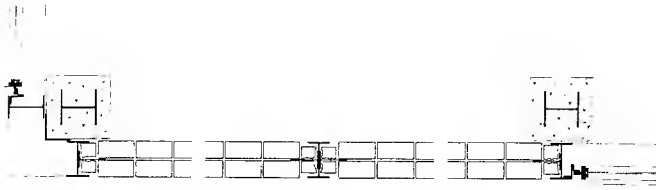


Figure 21. Drawing of steel plate detail



Figure 22. Corner steel plate detail



Figure 23. Perlestein Hall entrance



Figure 24. Chicago Technical Center, Administration Building



Figure 25. Life Sciences Research Building

**Illinois Institute of Technology, Cook County, Illinois**



Figure 26. Mechanical Engineering Building



Figure 27. Mechanical Engineering Building



Figure 28. South Building (left) & Central Building (right)  
Illinois Institute of Technology, Cook County, Illinois

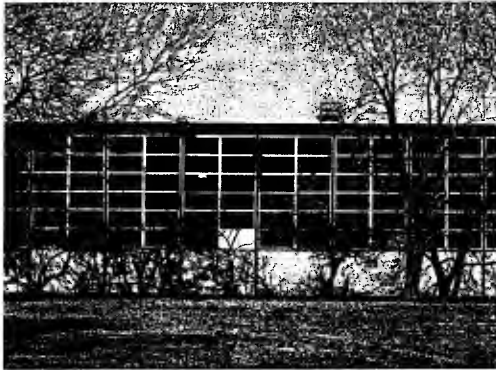


Figure 29. Laboratory Building



Figure 30. Siegel Hall.

**Illinois Institute of Technology, Cook County, Illinois**



Figure 31. CRB connection wing



Figure 32. CRB connection wing staircase.

**Illinois Institute of Technology, Cook County, Illinois**



Figure 33. Grover M. Hermann Hall

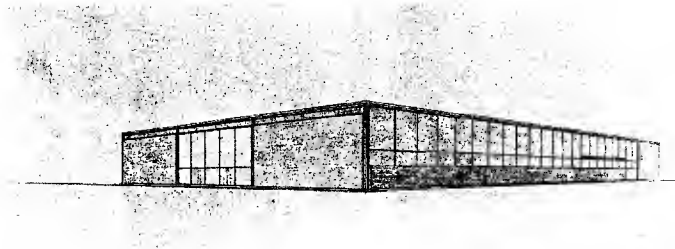


Figure 34. Mies' library design.

**Illinois Institute of Technology, Cook County, Illinois**





Figure 35. Life Sciences Building (left)



Figure 36. Harold Leonard Stuart Building.

**Illinois Institute of Technology, Cook County, Illinois**

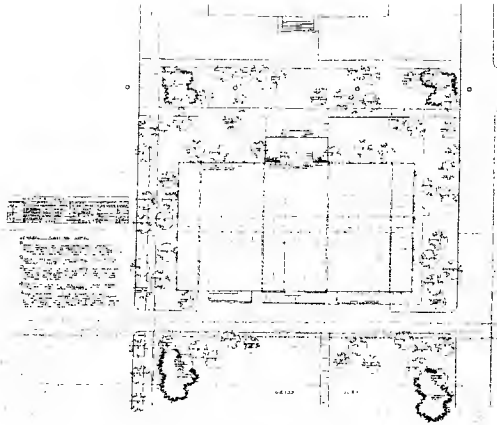


Figure 37. Drawing of Caldwell's landscaping plan around S.R. Crown Hall.

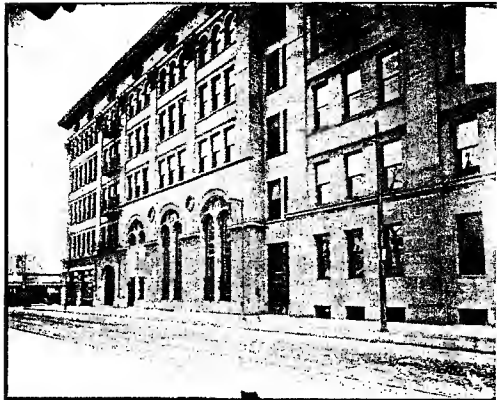
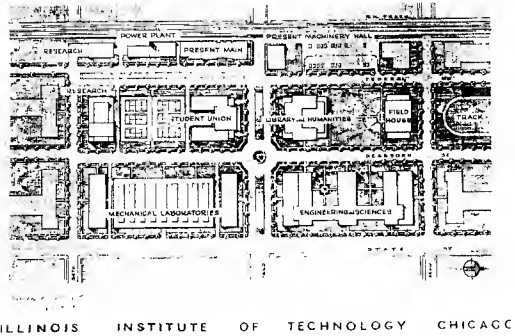


Figure 38. Lewis Institute (c. 1900)

**Illinois Institute of Technology, Cook County, Illinois**

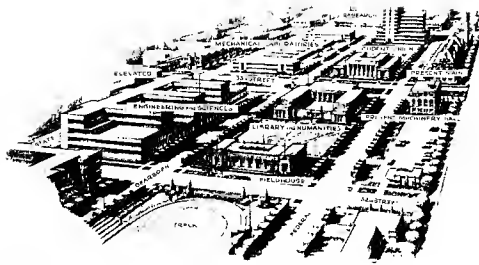


Figure 39. Construction photo of Alumni Memorial Hall showing decrepit condition of State Street buildings in background (c. 1945).



ILLINOIS INSTITUTE OF TECHNOLOGY CHICAGO  
 Figure 40. Aschuler's master plan

**Illinois Institute of Technology, Cook County, Illinois**



ILLINOIS INSTITUTE OF TECHNOLOGY CHICAGO

Figure 41. Aschuler's master plan



Figure 42. Mies's 1939 master plan drawing

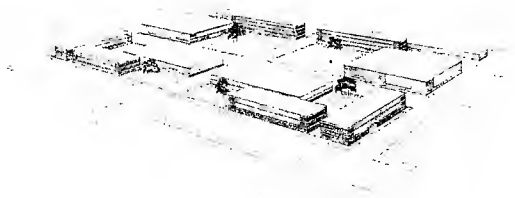


Figure 43. Development of Mies master plan

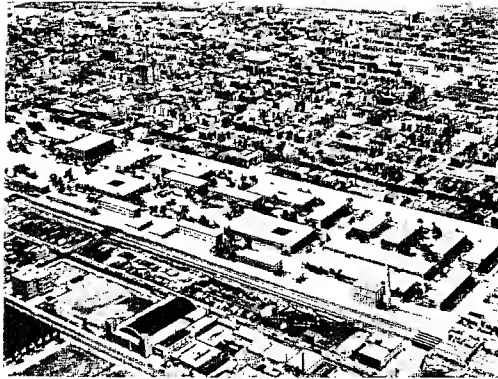


Figure 44. Photo montage of IIT campus model on existing site. The montage is revealing in showing differences between campus plan and architecture and surrounding neighborhood.

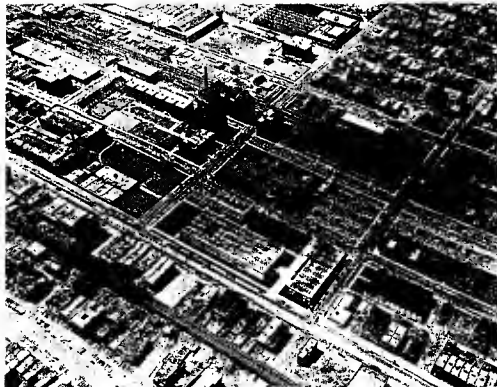


Figure 45. Aerial view of IIT campus (c. 1950)

**Illinois Institute of Technology, Cook County, Illinois**

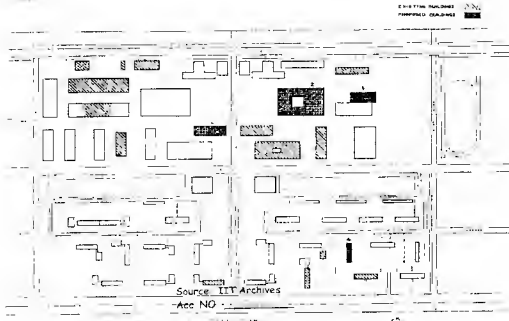


Figure 46. IIT campus plan 1953-54

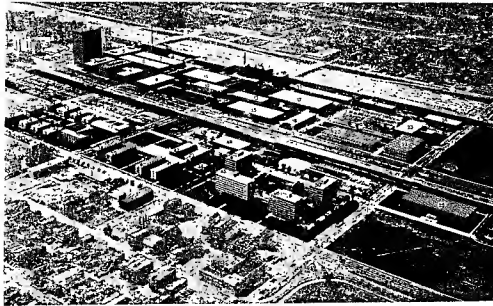


Figure 47. IIT campus plan, 1964-69

**Illinois Institute of Technology, Cook County, Illinois**

United States Department of the Interior  
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET

Section Photographs

**Illinois Institute of Technology, Cook County, Illinois**

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**IIT ACADEMIC CAMPUS  
HISTORIC DISTRICT  
PHOTOGRAPH CONTINUATION SHEETS**

The following continuation sheets refer to black and white photographs, numbered P 1 – P 33, for the IIT Academic Campus National Register Historic District application. The continuation sheets will list the photograph followed by seven items required by the National Park Service to be included for each photo:

1. Name of the property or, for districts, the name of the building or street address followed by the name of the district.
2. County and state where the property is located.
3. Name of the photographer.
4. Date of photograph.
5. Location of original negative.
6. Description of view indicating direction of camera.
7. Photograph number.

Items 1, 2, and 7 are the only items required to be also labeled on the back of each photograph. Items 2-5 (listed below) are common to all photographs and will not be replicated for each photograph.

2. Cook County, Illinois
3. Douglas Gilbert
4. March 2005
5. Austin AECOM  
303 East Wacker Drive  
Chicago, Illinois 60601

Refer to the "Photograph Key Plan" for graphic representation of where the photographs were taken and direction of camera.

**Photographs (listed by photograph number, item #7):**

**P1**

1. Main Building (left) and Machinery Hall (right)
6. Looking west along 33<sup>rd</sup> Street.

**P2**

1. Main Building
6. Looking southwest at east elevation main entrance.

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National Park Service

NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET

Section Photographs

**Illinois Institute of Technology, Cook County, Illinois**

---

P3

1. Machinery Hall
6. Looking northwest at southeast corner of building.

P4

1. Paul V. Galvin Library (right) and Minerals and Metals Research Building (left)
6. Looking north along Federal Street.

P5.

1. Engineering Research Building
6. Detail of west elevation fenestration.

P6

1. Boiler Plant & Steam Generating Plant
6. Looking north from intersection of 35<sup>th</sup> street and Federal Street.

P7

1. Chemical Research Building
6. Looking northwest.

P8

1. IIT Research Institute Tower (right) and Chemical Research Building (background)
6. Looking west.

P9

1. North Building (front), Central Building (middle), IIT Research Institute Tower (back)
6. Looking southeast.

P10

1. Left of sidewalk (Dearborn Street): North Building, Central Building, IIT Research Institute Tower  
Right of sidewalk (Dearborn Street): Life Sciences Building
6. Looking south down Dearborn Street.

P11

1. Paul V. Galvin Library (left) & S.R. Crown Hall (right)
6. Looking northeast.



United States Department of the Interior  
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET

Section Photographs

**Illinois Institute of Technology, Cook County, Illinois**

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**P12**

1. S.R. Crown Hall
6. Looking northeast.

**P13**

1. S.R. Crown Hall
6. Looking north.

**P14**

1. S.R. Crown Hall
6. Detail of roof girder.

**P15**

1. Paul V. Galvin Library (left) and Siegel Hall (right)
6. Looking north.

**P16**

1. Siegel Hall
6. Corner steel plate detail.

**P17**

1. Siegel Hall (left), Wishnick Hall (middle), Perlstein Hall (right)
6. Looking northwest

**P18**

1. Siegel Hall (left), Main Building (middle, background), Wishnick Hall (right)
6. Looking southwest along 33<sup>rd</sup> Street.

**P19**

1. Wishnick Hall (left, background), Perlstein Hall (right)
6. Looking west.

**P20**

1. Wishnick Hall (left), Perlstein Hall (right)
6. Looking north.

**P21**

1. Grover M. Hermann Hall (left), Wishnick Hall (right)
6. Looking north.

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National Park Service

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CONTINUATION SHEET

Section Photographs

**Illinois Institute of Technology, Cook County, Illinois**

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**P22**

1. Wishnick Hall
6. Looking east at west elevation.

**P23**

1. Grover M. Hermann Hall
6. Looking northwest.

**P24**

1. Alumni Memorial Hall (left), Perlstein Hall (right)
6. Looking east.

**P25**

1. Alumni Memorial Hall
6. Looking northeast.

**P26**

1. Grover M. Hermann Hall (left, background), Alumni Memorial Hall (right)
6. Looking west.

**P27**

1. Engineering I Building (center), Alumni Memorial Hall (far right)
6. Looking northeast.

**P28**

1. Life Sciences Building (left, background), Engineering I Building (center)
6. Looking northeast.

**P29**

1. Laboratory Building (left), Life Sciences Building (center), Engineering I Building (right)
6. Looking northeast.

**P30**

1. Laboratory Building
6. Looking north.

**P31**

1. Mechanical Engineering Building
6. Looking north.

United States Department of the Interior  
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET

Section Photographs

**Illinois Institute of Technology, Cook County, Illinois**

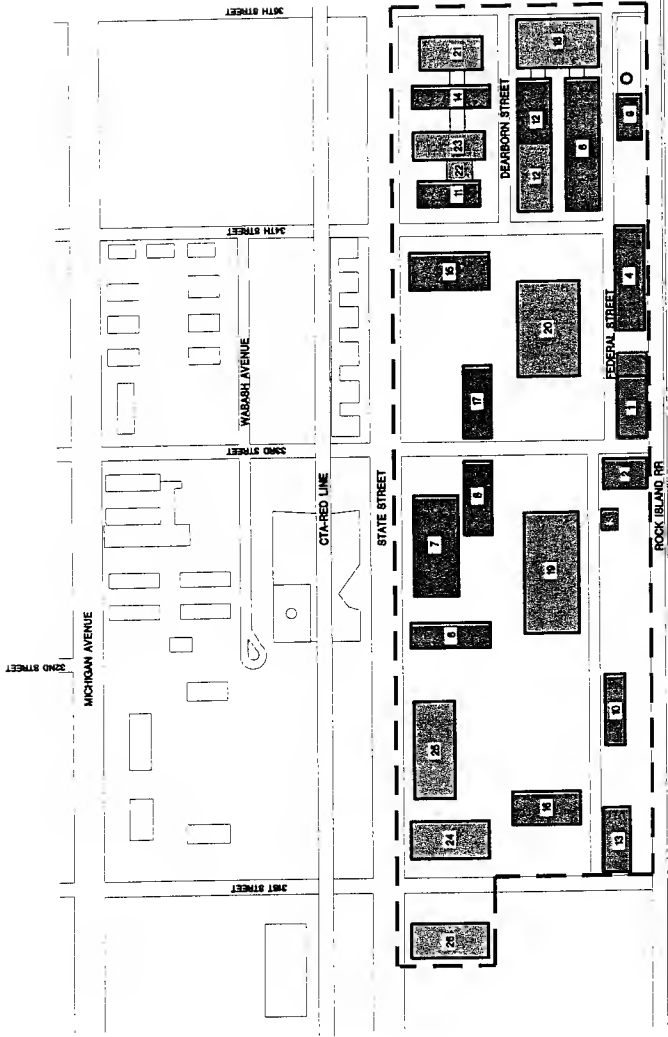
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**P32**

1. Life Sciences Building
6. Looking east.

**P33**

1. Life Sciences Building (left)
6. Looking south.



**LEGEND:**

- 1. MAIN BUILDING (1983)
- 2. MACHINERY HALL (1900)
- 3. MAINTENANCE GARAGE (1900)
- 4. MINERALS & METALS RESEARCH BUILDING (1943)
- 5. ENGINEERING RESEARCH BUILDING (1945)
- 6. ALUMNI MEMORIAL HALL (1946)
- 7. PERLSTEIN HALL (1946)
- 8. WISHNICK HALL (1949)
- 9. BOILER PLANT & STEAM GENERATING PLANT (1950)
- 10. CHICAGO TECHNICAL CENTER, ADMINISTRATION (1960)
- 11. NORTH BUILDING (1960)
- 12. LIFE SCIENCES RESEARCH BUILDING (1962/1961)
- 13. MECHANICAL ENGINEERING BUILDING (1963)
- 14. SOUTH BUILDING (1965)
- 15. S. R. CROWN HALL (1964)
- 16. LABORATORY BUILDING (1966)
- 17. SIEGEL HALL (1967)
- 18. CHEMISTRY RESEARCH BUILDING (1960)
- 19. GROVER M. HERMANN HALL (1962)
- 20. PAUL V. GALVIN LIBRARY (1962)
- 21. IIT RESEARCH INSTITUTE TOWER (1964)
- 22. POWER PLANT (1964)
- 23. CENTRAL BUILDING (1965)
- 24. LIFE SCIENCES BUILDING (1965)
- 25. ENGINEERING I BUILDING (1968)
- 26. HAROLD LEONARD STUART BUILDING (1971)

- BUILDINGS LIST:**
- 1. PATTON & FISHER
  - 2. LUDWIG MIES VAN DER ROHE
  - 3. SKIDMORE, OWINGS & MERRILL
  - 4. SCHMIDT, GARDEN & ERIKSON
  - 5. SCHMIDT, GARDEN & ERIKSON
  - 6. ENGINEERING RESEARCH BUILDING (1945)
  - 7. ALUMNI MEMORIAL HALL (1946)
  - 8. PERLSTEIN HALL (1946)
  - 9. WISHNICK HALL (1949)
  - 10. BOILER PLANT & STEAM GENERATING PLANT (1950)
  - 11. CHICAGO TECHNICAL CENTER, ADMINISTRATION (1960)
  - 12. NORTH BUILDING (1960)
  - 13. LIFE SCIENCES RESEARCH BUILDING (1962/1961)
  - 14. MECHANICAL ENGINEERING BUILDING (1963)
  - 15. SOUTH BUILDING (1965)
  - 16. S. R. CROWN HALL (1964)
  - 17. LABORATORY BUILDING (1966)
  - 18. SIEGEL HALL (1967)
  - 19. CHEMISTRY RESEARCH BUILDING (1960)
  - 20. GROVER M. HERMANN HALL (1962)
  - 21. PAUL V. GALVIN LIBRARY (1962)
  - 22. IIT RESEARCH INSTITUTE TOWER (1964)
  - 23. POWER PLANT (1964)
  - 24. CENTRAL BUILDING (1965)
  - 25. LIFE SCIENCES BUILDING (1965)
  - 26. ENGINEERING I BUILDING (1968)
  - 27. HAROLD LEONARD STUART BUILDING (1971)

ILLINOIS INSTITUTE OF TECHNOLOGY  
CHICAGO, ILLINOIS

ACADEMIC  
CAMPUS SITE

AUSTIN AECOM



3531-39 W. Roosevelt Rd.,  
Chicago, 05000873,  
LISTED, 8/10/05

ILLINOIS, COOK COUNTY,  
Cornell Square,  
1809 W 50th St.,  
Chicago, 05000875,  
LISTED, 8/11/05  
(Chicago Park District MPS)

ILLINOIS, COOK COUNTY,  
Illinois Institute of Technology Academic Campus,  
Roughly bounded by 31st St., State St., 325th St. and the Dan Ryan Expressway,  
Chicago, 05000871,  
LISTED, 8/12/05

ILLINOIS, COOK COUNTY,  
Purple, George E., House,  
338 Sunset Ave.,  
LaGrange, 05000845,  
LISTED, 8/12/05

ILLINOIS, DU PAGE COUNTY,  
Grand Theater,  
123 N. Hale St.,  
Wheaton, 05000872,  
LISTED, 8/12/05

ILLINOIS, IROQUOIS COUNTY,  
Prairie Dell Meetinghouse,  
Jct. of 2550 East and 2150 North Rd.,  
Iroquois vicinity, 05000846,  
LISTED, 8/12/05

ILLINOIS, PIKE COUNTY,  
New Philadelphia Town Site,  
Address Restricted,  
Barry vicinity, 05000869,  
LISTED, 8/11/05

ILLINOIS, TAZEWELL COUNTY,  
Denhart Bank Building,  
101 Washington Sq.,  
Washington, 05000874,  
LISTED, 8/12/05

IOWA, SCOTT COUNTY,  
Heinz, Bonaventura, House (first),  
1128 W. 5th St.,  
Davenport, 84001435,  
REMOVED, 7/22/05  
(Davenport MRA)

MARYLAND, MONTGOMERY COUNTY,  
Moreland,  
7810 Moorland Ln.,  
Bethesda, 05000877,  
LISTED, 8/11/05

MASSACHUSETTS, BERKSHIRE COUNTY,